

HARBORS AND RIVERS OF THE U. S. — (Continued.)

LEAST WATER IN CHANNEL WAY.

PLACES.	Limits between which depths are given.	Mean.		Spring tides.	
		Low water.	High water.	Low water.	High water.
		Feet.	Feet.	Feet.	Feet.
Mississippi Delta, ...	Pass à l'Outre, North Channel,*	9.5	10.6	9.8	10.7
	South Channel, ...	13	13.1	11.8	13.2
Northeast Pass, ...	Over bar, north entrance,*	9.5	10.6	9.8	10.7
	Over bar, south entrance, ...	9	10.1	8.8	10.2
Southeast Pass, ...	Entering,*	10	11.1	9.8	11.2
South Pass, ...	Channel,*	8	9.1	7.8	9.2
Southwest Pass, ...	Channel,*	18	14.1	12.8	14.2
Barrataria Bay, ...	Over bar outside of Grand Pass,*	7.5	8.7	7.2	8.9
	Grand passage to Independence Island, ...	15	16.2	14.7	16.4
Dernière or Last Island, ..	Channel inside, and north of Ship Island Shoal light ship,*	27	28.4	26.7	28.8
	Channel north of Ship Island Shoal, one mile from Dernière Island, ..	14	16.4	13.7	15.8
Atchafalaya Bay, ...	From entrance to Cut-off Channel buoy,*	8	9.6	7.6	10.0
	On the Narrows, ...	6.5	8.1	6.1	8.5
	On bulkhead, ...	6.5	8.1	6.1	8.5
	Mouth of Atchafalaya River, in mid-channel, ...	48	49.6	47.6	50.0
Vermillion Bay, ...	Over bar,*	5.5	7.4	5.3	7.6
	In mid-channel, off lighthouse, ...	42	43.6	41.6	44
Calcasieu River, ...	Entrance over bar,*	5.5	7.4	5.3	7.6
Sabine Pass, ...	Across the bar,*	7.5	9	7.9	9.8
Galveston Bay, ...	Entrance over bar,*	12	13.1	11.7	13.3
San Luis Pass, ...	Over bar,*	8	9.1	7.8	9.3
Bracos River, ...	Over bar,*	8	9.1	7.8	9.3
Matagorda Bay, ...	Entrance over bar,*	9	10.1	8.8	10.3
Aranas Pass, ...	Aranas Pass,*	9	10.1	8.7	10.5
Rio Grande, ...	Channel,*	4	4.9	3.8	5

* The highest tides occur at the moon's greatest declination, and are applied in the column headed "spring tides."

LEAST WATER IN CHANNEL WAY.										
PLACES.	Limits between which depths are given.	Mean, lowest of day.				Spring tides, lowest of day. Moon's greatest declination.				Date.
		Low Water. Feet.	High Water. Feet.	Low Water. Feet.	High Water. Feet.	Low Water. Feet.	High Water. Feet.	Low Water. Feet.	High Water. Feet.	
San Diego Bay,.....	Entrance,.....	37.4 ..	31.5 ..	26.8 ..	32.1 ..	26.8 ..	31.8 ..	31.8 ..	1861.	
San Diego,.....	Midway between south end of Zuniga Shoal and Point Loma lighthouse, bearing N. 61½ W. by compass,..... Middle Ground lighthouse, bearing N. 67½ W. by compass, distant three-fourths of a statute mile,..... Midway and nearly in range between Ballast Point and point opposite,.....	20 ..	34.1 ..	19.4 ..	24.7 ..	18.9 ..	24.4 ..	24.4 ..	1856.	
	Ahead of La Plaza, 160 yards from shore,.....	18 ..	22.1 ..	17.4 ..	22.7 ..	16.9 ..	22.4 ..	22.4 ..	1856.	
	At end of wharf, (Newtown,).....	23 ..	32.1 ..	17.4 ..	22.7 ..	16.9 ..	22.4 ..	22.4 ..	1856.	
San Clemente Island, (SE. end,).....	About midway between NE. and SW. points at anchorage in deepest bight, 450 yards from shore,.....	40 ..	44.1 ..	39.4 ..	44.7 ..	33.9 ..	44.4 ..	44.4 ..	1856.	
San Clemente Island, (NW. end,).....	About 200 yards from shore at anchorage,.....	36 ..	40.1 ..	35.4 ..	40.7 ..	34.9 ..	40.4 ..	40.4 ..	1852.	
Mission San Juan Capistrano, Santa Catalina Island, (SW. side,).....	At anchorage,.....	49 ..	46.1 ..	41.4 ..	46.7 ..	40.9 ..	46.4 ..	46.4 ..	1853.	
	Anchorage in Catalina harbor,.....	21 ..	25.0 ..	20.5 ..	25.5 ..	19.9 ..	25.1 ..	25.1 ..	1852.	
San Pedro,.....	In range between Pt. Pedro and half a mile from Dead Man's Is. Anchorage,.....	19 ..	22.0 ..	17.5 ..	22.5 ..	16.9 ..	22.1 ..	22.1 ..	1852.	
Point Duma,.....	At anchorage half a mile from shore,.....	54 ..	58.0 ..	53.5 ..	58.5 ..	52.9 ..	58.1 ..	58.1 ..	1853.	
San Buenaventura,.....	Anchorage, Prisoner's harbor,.....	36 ..	40.1 ..	35.5 ..	40.9 ..	35.0 ..	40.4 ..	40.4 ..	1855.	
Santa Cruz Island,.....	Anchorage inside of kelp, 450 yards from shore,.....	75 ..	79.1 ..	74.5 ..	79.9 ..	74.0 ..	79.4 ..	79.4 ..	1852.	
Santa Barbara,.....	Anchorage, Oyler's harbor,.....	18 ..	22.1 ..	17.5 ..	22.9 ..	17.0 ..	22.4 ..	22.4 ..	1852.	
San Miguel Island,.....	Anchorage,.....	37 ..	41.1 ..	36.5 ..	41.9 ..	36.0 ..	41.4 ..	41.4 ..	1852.	
Coxo harbor,.....	Anchorage in harbor,.....	30 ..	34.1 ..	29.5 ..	34.9 ..	29.0 ..	34.4 ..	34.4 ..	1852.	
San Louis Obispo,.....	Harbor anchorage,.....	33 ..	36.9 ..	32.3 ..	37.4 ..	31.7 ..	37.1 ..	37.1 ..	1852.	
San Simoon,.....	Anchorage,.....	24 ..	37.9 ..	33.3 ..	38.4 ..	32.7 ..	38.1 ..	38.1 ..	1852.	
Monterey harbor,.....	Near shore,.....	43 ..	45.9 ..	41.5 ..	46.9 ..	40.9 ..	45.3 ..	45.3 ..	1852.	
	Anchorage,.....	30 ..	33.9 ..	29.5 ..	34.9 ..	28.9 ..	33.8 ..	33.8 ..	1852.	
Santa Cruz harbor,.....	Anchorage,.....	37 ..	39.9 ..	34.5 ..	39.5 ..	33.9 ..	38.9 ..	38.9 ..	1852.	

HARBORS AND RIVERS OF THE U. S. — (Continued.)

PLACES.	Limits between which depths are given.	LEAST WATER IN CHANNEL WAY.									
		Mean, lowest of day.				Spring tides, lowest of day. Mean.				Spring tides, lowest of day. Moon's greatest declination.	
		Low Water.	High Water.	Feet.	Feet.	Low Water.	High Water.	Feet.	Feet.	Low Water.	High Water.
San Francisco bay,.....	From 4 fathom bank around to southern shore,.....	28	32.2	..	32.6	..	32.6	..	32.6	..	32.4
	Anchorage off Rincon Point, 450 yards from shore,.....	66	70.2	..	65.6	..	70.6	..	64.9	..	70.4
	Anchorage off Market-street wharf, San Francisco,.....	54	58.2	..	53.6	..	53.6	..	52.9	..	58.4
	Off Cunningham's wharf,.....	36	40.2	..	35.6	..	40.6	..	34.9	..	40.4
	Off Clark's point, 450 yards from shore,.....	43	46.2	..	41.6	..	46.6	..	40.9	..	46.4
San Francisco harbor,.....	On the bar,.....	33	37.2	..	32.6	..	37.6	..	31.9	..	37.4
	At best wharves,.....	20	24.2	..	19.6	..	24.6	..	18.9	..	24.4
	In mid channel, between Commission Rock and western shore,.....	25	30.5	..	24.8	..	30.7	..	24.0	..	30.3
	In mid channel, between Navy Yard and Vallejo,.....	25	30.5	..	24.8	..	30.7	..	24.0	..	30.3
Ballenas Bay,.....	Inside of breakers on Duxbury reef, about a mile from shore,.....	24	28.2	..	23.6	..	28.6	..	22.9	..	28.4
St Francis Drake's Bay,....	Half a mile inside the point, and 400 yards from shore,.....	17	21.2	..	16.6	..	21.6	..	15.9	..	21.4
Bodega Bay,.....	Half a mile inside of reef, anchorage, 900 yards from shore,...	36	40.0	..	35.4	..	40.7	..	34.8	..	40.4
Coast,.....	At Haven's anchorage,.....	43	52.5	..	47.5	..	52.9	..	46.8	..	52.7
	Anchorage at entrance,.....	43	52.5	..	47.5	..	52.9	..	46.8	..	52.7
Albion River,.....	Anchorage inside of point,.....	30	34.5	..	29.5	..	34.9	..	28.8	..	34.7
Mendochno City,.....	Anchorage 500 yards inside of point,.....	52	56.5	..	51.5	..	56.9	..	50.8	..	56.7
Shelter Cove,.....	On bar, half a mile from shore,.....	21	25.8	..	20.4	..	26.4	..	19.7	..	26.1
Humboldt Bay,.....	* Main channel,.....	30	34.8	..	19.4	..	35.4	..	18.7	..	35.1
	Anchorage half a mile off Crescent City,.....	21	26.2	..	20.4	..	26.9	..	19.7	..	26.5
Crescent City harbor,.....	Anchorage three-fourths of a mile from Tichenor's Rock,....	46	51.7	..	45.4	..	52.4	..	44.7	..	52.0
Port Orford, or Ewing harbor,.....	On bar, opposite mid-channel,.....	18	19.1	..	12.4	..	19.6	..	11.7	..	19.3
Unipquah River,.....	North Channel to Baker's Bay,.....	24	30.5	..	23.4	..	30.9	..	22.7	..	30.6
Columbia River,.....	Entrance into South Channel,*	19	25.5	..	18.4	..	25.9	..	17.7	..	25.6
	On bar of South Channel,.....	16	22.5	..	16.4	..	22.9	..	14.7	..	22.6
Shoalwater Bay,.....	On bar,.....	18	24.5	..	17.1	..	25	..	16.4	..	24.5

* Twenty-one feet may be carried in at mean low water by keeping a little northward and westward, nearer the breakers of the middle sands, and, at the turn, hauling up for Cape Disappointment.

North Channel.....	22.5	..	29	..	21.0	..	29.5	..	20.9	..	29	..	.....
South Channel.....	25	..	31.5	..	24.1	..	33	..	23.4	..	31.5	..	1858
Anchorage three-quarters of a mile inside of Point Greenville, and same distance from shore.....	23	..	28.5	..	21.1	..	29	..	20.4	..	28.5	..	1854
Anchorage a mile inside of Waddah Island, and 450 yards from shore.....	36	..	42.4	..	34.8	..	43.0	..	34.1	..	42.5	..	1851
Harbor anchorage.....	54	..	60.4	..	53.1	..	60.9	..	52.2	..	60.3	..	1838
Harbor anchorage.....	45	..	51.4	..	44.1	..	51.7	..	43.2	..	51.8	..	1855
Anchorage near kelp, 450 yards from shore.....	35	..	31.4	..	24.4	..	31.7	..	23.8	..	32.2	..	1854
Bellingham Bay.....	60	..	67	..	59.4	..	67.4	..	58.1	..	68	..	1855
Anchorage 400 yards southwest of Fitzhugh's wharf.....	18	..	25	..	17.4	..	25.4	..	16.1	..	26	..	1855
Anchorage 400 yards east of Custom House.....	48	..	54.4	..	47.4	..	54.7	..	46.3	..	55.9	..	1854
Port Ludlow.....	36	..	45.2	..	37.3	..	45.8	..	34.3	..	46.4	..	1855
Anchorage.....	18	..	27.3	..	17.3	..	27.8	..	16.2	..	28.4	..	1855
Anchorage.....	20	..	29.2	..	18.9	..	29.8	..	18.2	..	30.4	..	1854
Anchorage 450 yards inside of entrance.....	46	..	55.3	..	45.3	..	55.8	..	44.2	..	56.4	..	1854
Anchorage off Stellacoom creek, 400 yards.....	18	..	30.0	..	17.0	..	30.9	..	16.1	..	31.7	..	1855
Olympia harbor.....	11	..	23	..	10	..	23.9	..	9.1	..	24.7	..	....

In passing from New-York to an eastern port, the first great change in the tides and tidal currents is between the East River and Long Island Sound; the difference between Governor's Island and Negro Point on Ward's Island, at the eastern entrance to Hell Gate, is two hours and forty-five minutes. Between this point and Throg's Point the change is small. The mariner is now in the full tide of the Sound, and between Throg's Point and Fisher's Island there is a difference of time of but two hours and twenty minutes, the greatest part of which is at the head of the Sound and at its entrance—that is, near Throg's Point and Fisher's Island. From off New-London to off Sand's Point the difference is but one hour and forty minutes; so that if the mariner, instead of remaining at Throg's Point, passes onward to Fisher's Island, he would lose but half a tide in the whole passage.

¹ The depth in channel way varies between 6 and 8½ fathoms. ² Two bars, each a quarter of a mile, have a less depth than 18 feet. ³ A small shoal, with 13 feet, lies in the middle of the kill, opposite the wharf at Blazing Star; and another, with 10 feet, a quarter of a mile to the northward; but deeper water is found on east side of both. ⁴ A shoal, of 4 feet, obstructs the eastern channel, half way between Chelsea and its junction with the main channel. ⁵ Channel very narrow in the vicinity of Black Beacon. ⁶ From Bergen Point light, half way to Newark Bay lighthouse, 17 feet may be carried. ⁷ In a straight line. ⁸ A shoal of 31.5 feet occurs about a mile below Sing Sing. ⁹ Soundings varying between 10 and 15 fathoms.

SHIP-BUILDING AND TONNAGE OF NEW-YORK.

In order to illustrate more fully the foreign commerce of the State of New-York, the following table will show what proportion of vessels entered these ports, compared with all others in the Union :

I. STATEMENT EXHIBITING THE NUMBER OF AMERICAN AND FOREIGN VESSELS, WITH THEIR TONNAGE AND CREWS, WHICH ENTERED INTO THE SEVERAL DISTRICTS OF THE STATE OF NEW-YORK FROM FOREIGN COUNTRIES, DURING THE FISCAL YEAR ENDING JUNE 30, 1860.

ENTERED INTO	AMERICAN VESSELS.			FOREIGN VESSELS.			TOTAL.		
	No.	Tons.	Men.	No.	Tons.	Men.	No.	Tons.	Men.
Sackett's Harb., N. Y.,	132	98,651	4,005	..	..	..	132	98,651	4,005
Genesee, "	133	79,132	2,711	229	48,757	3,176	362	127,889	5,887
Oswego, "	691	230,547	6,082	1,517	214,800	11,577	2,208	445,447	17,669
Niagara, "	81	1,997	132	287	84,899	4,883	318	86,896	4,515
Buffalo, "	1,446	1,301,674	16,508	649	60,560	3,605	2,095	1,362,234	20,108
Oswegatchie, "	171	186,566	5,130	173	25,136	3,383	344	161,702	8,513
Sag Har. & Dunkirk,	30	1,140	100	16	633	67	46	1,773	167
New-York, "	2,645	1,856,865	41,495	1,337	617,147	25,233	3,982	1,973,812	66,733
Champlain, "	278	17,631	600	301	22,959	1,003	579	40,590	1,609
Cape Vincent, "	527	424,525	15,214	425	113,124	6,968	952	537,949	22,182
Total State of N. Y.,	6,084	3,648,828	91,922	5,231	1,187,620	59,405	11,318	4,836,448	151,327
" all other ports,	6,122	2,272,457	76,879	5,491	1,166,291	47,166	11,613	3,438,748	124,045
Total U. S., 1859-60,	12,206	5,921,285	168,801	10,725	2,353,911	106,571	22,931	8,275,196	275,372
" " 1855-59,	12,035	5,265,648	155,698	10,532	2,540,887	109,989	22,567	7,806,035	265,687
" " 1857-58,	10,735	4,395,042	141,897	10,037	2,209,403	102,476	20,772	6,603,045	244,373
" " 1856-57,	11,304	4,721,370	161,062	11,024	2,464,946	116,797	22,328	7,186,316	277,859
" " 1855-56,	10,307	4,885,484	148,189	11,375	2,436,769	118,984	21,682	6,872,253	267,173
" " 1854-55,	9,315	3,861,391	137,251	10,012	2,083,948	99,891	19,327	5,945,339	237,142

II. STATEMENT SHOWING THE NUMBER AND CLASS OF VESSELS BUILT, AND THE TONNAGE THEREOF, IN THE STATE OF NEW-YORK, DURING THE YEAR ENDING JUNE 30, 1860.

DISTRICTS.	Ships and Barks.	Brigs.	Schoon- ers.	Sloops and Canal Boats.	Steam- ers.	Total built.	Total tonnage.
Champlain, ...	..	..	..	..	..	..	..
Sackett's Harbor, ...	..	..	..	..	..	..	..
Oswego, ...	..	..	10	22	..	32	3,987
Niagara, ...	..	..	1	..	..	1	116
Genesee, ...	..	..	..	..	..	..	..
Oswegatchie, ...	..	..	..	..	..	..	..
Buffalo, ...	..	..	2	11	10	23	3,786
Sag Harbor, ...	..	1	..	..	..	1	150
Greenport, ...	..	..	3	..	..	3	381
Dunkirk, ...	..	..	..	..	..	..	..
New-York, ...	4	2	15	92	28	141	23,484
Cold Spring, ...	..	..	..	..	..	..	..
Cape Vincent, ...	..	..	..	..	..	..	..
Total, 1859-60, ...	4	3	31	125	38	201	31,906
" 1858-59, ...	2	..	14	64	27	107	16,313
" 1857-58, ...	7	3	47	94	42	203	37,185
" 1856-57, ...	28	5	76	83	45	237	67,826
" 1855-56, ...	24	7	87	161	27	306	76,301
" 1854-55, ...	45	7	98	356	48	554	115,231

III. STATEMENT SHOWING THE NUMBER AND CLASS OF VESSELS BUILT, AND THE TONNAGE THEREOF, IN THE SEVERAL STATES AND TERRITORIES OF THE UNITED STATES, FROM 1815 TO JUNE 30, 1860, INCLUSIVE.

YEARS.	<i>Ships and Barks.</i>	<i>Brigs.</i>	<i>Schooners.</i>	<i>Sloops and Canal Boats.</i>	<i>Steamers.</i>	<i>Total built.</i>	<i>Total tonnage.</i>
1815.....	136	224	681	274	..	1,315	154,624
1816.....	76	122	781	424	..	1,403	181,668
1817.....	84	86	559	894	..	1,073	86,298
1818.....	53	85	428	332	..	893	82,421
1819.....	53	82	473	242	..	850	79,817
1820.....	21	60	801	152	..	524	47,734
1821.....	48	89	247	127	..	507	65,566
1822.....	64	181	260	168	..	623	75,346
1823.....	55	127	260	165	15	622	75,007
1824.....	56	156	877	166	26	781	90,939
1825.....	56	197	538	163	35	994	114,997
1826.....	71	187	482	227	45	1,012	126,438
1827.....	55	153	464	241	33	984	103,342
1828.....	73	108	474	196	33	884	93,375
1829.....	44	68	485	145	43	785	77,098
1830.....	25	56	403	116	37	637	68,094
1831.....	72	95	416	94	34	711	85,962
1832.....	132	148	568	122	100	1,065	144,539
1833.....	144	169	625	185	65	1,188	161,626
1834.....	93	94	497	180	63	937	118,330
1835.....	25	50	301	100	30	507	46,238
1836.....	93	65	444	164	124	890	113,627
1837.....	67	72	507	168	135	949	122,987
1838.....	66	79	501	153	90	898	113,135
1839.....	88	89	439	122	125	853	120,989
1840.....	97	109	378	224	64	872	118,309
1841.....	114	101	310	157	78	762	118,893
1842.....	116	91	273	404	137	1,021	120,083
1843.....	58	34	138	173	79	432	43,617
1844.....	73	47	204	279	163	766	168,537
1845.....	124	87	322	342	163	1,038	146,018
1846.....	100	164	576	355	225	1,420	188,208
1847.....	151	168	689	392	193	1,593	243,732
1848.....	254	174	701	547	175	1,851	318,075
1849.....	198	148	623	370	208	1,547	256,577
1850.....	247	117	547	290	159	1,360	272,218
1851.....	211	65	522	326	233	1,367	298,208
1852.....	255	79	584	267	259	1,444	351,493
1853.....	269	95	681	394	271	1,710	425,572
1854.....	334	112	661	386	281	1,774	535,616
1855.....	331	126	605	669	253	2,034	588,450
1856.....	306	103	594	479	221	1,703	469,393
1857.....	251	58	504	353	263	1,434	378,804
1858.....	122	46	431	400	226	1,225	242,286
1859.....	89	23	297	284	172	870	156,601
1860.....	110	36	372	289	264	1,071	212,892

IV. VESSELS AND TONNAGE CLEARED FROM THE DISTRICT OF NEW-YORK.

<i>Fiscal Years.</i>	<i>AMERICAN.</i>		<i>FOREIGN.</i>		<i>TOTAL.</i>	
	<i>Vessels.</i>	<i>Tonnage.</i>	<i>Vessels.</i>	<i>Tonnage.</i>	<i>Vessels.</i>	<i>Tonnage.</i>
1826.....	..	208,202	..	19,655	..	227,857
1830.....	..	210,535	..	32,620	..	243,155
1835.....	1,226	289,268	433	77,121	1,659	366,389
1840.....	1,067	283,149	503	125,619	1,570	408,768
1845.....	1,127	341,094	561	142,431	1,688	483,525
1850.....	1,379	596,812	1,230	385,666	2,609	982,478
1855.....	1,941	1,091,244	1,169	354,510	3,110	1,445,754
1857.....	2,307	1,310,875	1,047	445,566	3,354	1,756,441
1858.....	1,901	1,027,390	936	433,608	2,837	1,460,998
1859.....	1,911	925,528	1,175	550,761	3,086	1,476,279
1860.....	2,026	1,056,486	1,376	622,419	3,402	1,678,905

V. STATEMENT EXHIBITING THE NUMBER OF AMERICAN AND FOREIGN VESSELS, WITH THEIR TONNAGE AND CREWS, WHICH ENTERED INTO THE DISTRICT OF NEW-YORK, AND THE COUNTRIES FROM WHENCE THEY ARRIVED, DURING THE YEAR ENDING JUNE 30, 1860.

ENTERED FROM	AMERICAN VESSELS.			FOREIGN VESSELS.			TOTAL.		
	No.	Tons.	Men.	No.	Tons.	Men.	No.	Tons.	Men.
Russia on the North,.....	7	4,584	125	..	..	..	7	4,584	125
Prussia,.....	..	..	..	1	310	10	1	310	10
Sweden and Norway,.....	2	1,099	26	1	251	9	3	1,350	35
Swedish West Indies,.....	3	452	17	1	122	6	4	574	23
Danish West Indies,.....	7	1,373	58	4	1,570	47	11	2,943	105
Hamburg,.....	2	1,584	40	42	56,951	2,467	44	58,535	2,507
Bremen,.....	..	..	..	64	57,972	2,102	64	57,972	2,102
Holland,.....	14	10,370	260	15	8,781	254	29	19,151	514
Dutch West Indies,.....	43	8,749	325	5	899	38	48	9,648	363
Dutch East Indies,.....	4	2,074	70	..	..	..	4	2,074	70
Belgium,.....	18	15,523	347	2	1,453	42	20	16,976	389
England,.....	357	384,168	8,725	149	219,199	9,389	506	603,367	18,114
Scotland,.....	26	16,510	427	45	34,542	1,377	71	51,052	1,804
Ireland,.....	1	1,115	24	12	20,926	1,065	13	22,041	1,089
Gibraltar,.....	2	425	15	4	794	32	6	1,219	47
Malta,.....	..	..	..	1	219	8	1	219	8
Canada,.....	4	1,078	32	3	885	18	7	1,463	50
Other British N. Am. Poss.,.....	60	11,098	405	414	65,363	2,711	474	79,461	3,116
British West Indies,.....	168	34,858	1,334	140	25,223	1,077	308	60,081	2,411
British Honduras,.....	12	8,782	128	..	..	..	12	8,782	128
British Guiana,.....	8	2,613	88	2	340	15	10	2,953	103
British Possessions in Africa,.....	9	2,185	81	5	978	40	14	3,163	121
British Australia,.....	6	1,469	51	..	..	..	6	1,469	51
British East Indies,.....	31	29,384	711	3	1,740	45	34	31,124	756
France on the Atlantic,.....	94	124,589	4,260	18	6,762	216	112	131,351	4,476
France on the Mediterranean,.....	18	7,205	209	26	9,410	308	44	16,615	517
French North Amer'n Poss.,.....	..	..	..	7	887	58	7	887	58
French West Indies,.....	1	173	6	5	690	49	6	863	55
Spain on the Atlantic,.....	12	3,635	113	2	484	18	14	4,119	131
Spain on the Mediterranean,.....	37	9,965	324	24	4,896	149	61	14,861	523
Canary Islands,.....	8	2,342	73	2	480	19	10	2,822	92
Philippine Islands,.....	18	19,534	453	1	804	22	19	20,338	475
Cuba,.....	840	308,571	10,526	85	23,032	1,206	925	336,603	11,732
Porto Rico,.....	154	31,715	1,230	55	10,245	404	209	51,960	1,634
Portugal,.....	..	..	..	11	2,556	98	11	2,556	98
Azores,.....	1	699	23	1	197	8	2	896	31
Madeira,.....	1	259	7	..	..	..	1	259	7
Sardinia,.....	5	1,627	56	7	3,087	119	12	4,714	175
Tuscany,.....	23	18,713	493	4	2,241	60	27	20,954	498
Papal States,.....	..	..	..	1	170	8	1	170	8
Two Sicilies,.....	44	15,146	458	38	12,124	473	82	27,270	931
Austria,.....	6	2,460	79	13	3,730	123	19	6,190	202
Greece,.....	1	248	8	6	1,241	48	7	1,489	56
Turkey in Asia,.....	4	1,109	44	6	3,302	102	10	4,411	146
Egypt,.....	1	299	9	3	659	27	4	958	36
Other ports in Africa,.....	19	6,062	197	2	499	18	21	6,561	215
Hayti,.....	90	16,053	675	20	3,002	132	110	19,055	807
San Domingo,.....	17	3,148	124	23	4,056	189	40	7,204	306
Mexico,.....	55	17,341	568	5	1,643	43	60	18,984	611
Central Republic,.....	6	1,116	42	3	516	22	9	1,632	64
New-Granada,.....	100	97,930	4,401	5	1,236	42	105	99,166	4,443
Venezuela,.....	47	10,230	393	9	1,762	73	56	11,992	466
Brazil,.....	137	38,701	1,305	36	9,297	337	173	47,998	1,642
Uruguay, or Cisplatine Rep.,.....	10	3,463	113	..	..	..	10	3,463	113
Buenos Ayres, or Arg. Rep.,.....	40	13,914	430	1	293	10	41	14,207	440
Chili,.....	6	3,750	94	..	..	..	6	3,750	94
Peru,.....	10	10,675	229	..	..	..	10	10,675	229
Sandwich Islands,.....	3	1,072	34	2	448	17	5	1,520	51
Other Islands in the Pacific,.....	3	2,194	55	..	..	..	3	2,194	55
China,.....	50	47,984	1,230	3	1,380	45	53	49,314	1,275
Total 1859-60,.....	2,645	1,356,665	41,495	1,337	617,147	25,238	3,982	1,973,812	66,738
" 1858-59,.....	2,657	1,320,290	40,011	1,245	569,854	23,623	3,902	1,890,144	63,634
" 1857-58,.....	2,401	1,273,788	39,666	929	420,431	17,138	3,330	1,694,219	56,849
" 1856-57,.....	3,014	1,584,764	49,759	1,054	450,885	18,028	4,068	2,035,649	67,787
" 1855-56,.....	2,496	1,381,726	..	1,033	299,933	..	3,529	1,681,659	..
" 1854-55,.....	2,588	1,377,738	41,933	1,185	358,169	13,263	3,773	1,735,907	55,246

VI. The increase in the amount of tonnage employed in steam navigation since 1848, and owned in the District of New-York, exhibited in the following table:

YEARS.	REGISTERED.		ENROLLED AND LICENSED.				TOTAL.	
	Tons.	95ths.	Tons.	95ths.	Tons.	95ths.	Tons.	95ths.
1848,.....	6,523	73	57,705	41	64,229	19		
1849,.....	10,642	76	61,175	92	71,818	73		
1850,.....	36,148	47	58,967	9	85,115	56		
1851,.....	52,392	68	69,148	89	121,541	62		
1852,.....	63,860	33	77,063	84	140,924	22		
1853,.....	76,851	78	88,311	53	165,163	36		
1854,.....	82,607	73	101,487	41	184,095	19		
1855,.....	89,105	9	107,692	88	196,798	3		
1856,.....	68,777	26	107,820	67	176,597	93		
1857,.....	69,051	67	111,526	89	180,578	61		
1858,.....	65,594	89	118,638	88	184,233	82		
1859,.....	70,897	52	120,498	09	191,395	61		
1860,.....	72,929	55	132,580	77	205,510	37		

VII. RECAPITULATION OF THE NUMBER AND CLASS OF VESSELS BUILT IN EACH STATE OF THE UNION DURING THE FISCAL YEAR ENDING JUNE 30, 1860. (Official.)

STATES AND TERRITORIES.	CLASS OF VESSELS.							Total built.	Total tonnage.
	Ships and barks.	Brigs.	Schoon-ers.	and canal boats.	Steam-ers.				
Maine,.....	48	20	95	2	2		173	57,867	
New-Hampshire,.....	4			1			5	8,308	
Vermont,.....				2			2	110	
Massachusetts,.....	30	2	91	2	7		132	33,461	
Rhode Island,.....	2	1			1		4	1,895	
Connecticut,.....	6	1	15	9	4		35	7,758	
New-York,.....	4	8	81	125	88		201	81,936	
New-Jersey,.....			20	17	1		38	4,264	
Pennsylvania,.....	1	2	16	63	65		152	21,615	
Delaware,.....			7	1	6		14	5,826	
Maryland,.....	8	6	24	2	3		43	7,798	
District of Columbia,.....				36			36	2,458	
Virginia,.....	1	1	3	4	17		26	4,873	
North Carolina,.....			9	5	3		17	864	
South Carolina,.....			1		1		2	72	
Georgia,.....					4		4	667	
Florida,.....			2		1		3	255	
Alabama,.....			3		5		8	1,189	
Mississippi,.....			5	1	1		7	826	
Louisiana,.....			4		8		12	1,500	
Tennessee,.....					5		5	438	
Kentucky,.....					29		29	8,681	
Missouri,.....					18		18	4,061	
Illinois,.....									
Ohio,.....			5	3	33		40	6,193	
Wisconsin,.....			1		1		2	96	
Michigan,.....	1		6	8	8		23	2,303	
Texas,.....			14	1	1		16	1,006	
California,.....			20	2	3		30	2,023	
Oregon,.....									
Washington Territory,.....									
Total, 1859-60,.....	110	36	372	289	264		1,071	212,592	
" 1858-59,.....	89	28	297	234	172		870	156,603	
" 1857-58,.....	123	46	431	400	226		1,225	242,386	
" 1856-57,.....	251	53	504	358	263		1,424	373,504	
" 1855-56,.....	306	108	594	479	221		1,708	469,898	
" 1854-55,.....	381	136	605	660	243		2,024	563,450	

VIII. STATEMENT OF THE VESSELS CLEARED FROM THE SEVERAL STATES FOR FOREIGN COUNTRIES, DURING THE FISCAL YEAR ENDING JUNE 30, 1860.

STATES.	AMERICAN VESSELS.				FOREIGN VESSELS.				TOTAL AMERICAN AND FOREIGN.			
	Number.	Tons.	Crews.		Number.	Tons.	Crews.		Number.	Tons.	Crews.	
			Men.	Boys.			Men.	Boys.			Men.	Boys.
New-York.....	5,460	3,888,585	59,858	1,827	5,198	1,190,750	59,198	581	10,648	4,574,285	149,056	1,908
Maine.....	825	205,107	6,790	13	602	108,374	5,678	4	1,427	809,081	12,468	17
New-Hampshire.....	5	1,676	41	..	58	5,812	283	8	63	6,986	394	8
Vermont.....	188	9,929	540	..	164	18,381	607	..	847	23,480	1,147	..
Massachusetts.....	1,069	812,517	12,379	44	2,709	484,092	18,559	75	8,778	746,909	80,268	119
Rhode Island.....	57	11,292	438	6	65	12,114	464	..	122	38,406	802	6
Connecticut.....	102	18,688	959	82	77	18,564	695	..	179	82,187	1,484	23
New-Jersey.....	90	6,516	188	5	16	2,511	95	..	86	9,027	388	5
Pennsylvania.....	840	108,045	3,439	..	168	89,298	1,854	..	508	142,848	4,873	..
Delaware.....	12	2,169	86	..	3	414	21	..	15	2,588	107	..
Maryland.....	885	115,788	3,928	..	208	58,267	2,208	..	598	174,000	6,186	..
District of Columbia.....	..	..	..	..	2	275	13	..	2	275	13	..
Virginia.....	180	59,611	1,864	..	88	20,770	760	..	268	80,881	2,614	..
North Carolina.....	185	28,000	1,280	2	88	8,707	325	..	228	86,707	1,555	2
South Carolina.....	269	188,909	4,010	..	142	49,451	1,844	..	411	188,238	5,864	..
Georgia.....	213	105,128	2,815	..	124	61,649	1,870	..	886	169,772	4,965	4
Alabama.....	245	186,847	2,826	825	95	65,540	1,822	257	843	253,887	5,461	768
Florida.....	402	85,873	2,674	..	54	11,516	555	3	456	94,989	4,259	3
Illinois.....	908	718,588	18,273	..	885	180,785	5,700	..	1,283	894,358	24,078	..
Louisiana.....	10	84,205	904	..	98	34,268	1,363	2	108	48,768	1,387	..
Ohio.....	156	25,671	1,129	..	92	35,246	1,392	..	888	91,911	2,421	..
Michigan.....	689	181,043	1,806	..	841	249,709	7,492	..	1,280	481,751	14,766	..
Indiana.....	129	49,487	1,408	..	24	6,070	989	..	184	67,563	2,171	..
Wisconsin.....	78	89,385	1,408	..	8	2,006	134	..	86	81,598	2,171	..
California.....	873	809,285	10,402	..	148	40,898	2,114	..	514	881,088	12,544	..
Oregon.....	19	19,446	768	..	2	288	84	..	21	19,734	797	..
Total cleared 1859-60.....	12,688	5,165,994	178,791	1,954	10,919	2,624,005	118,248	988	23,594	8,789,999	292,184	9,887
Total entered 1859-60.....	12,296	5,921,385	168,501	1,299	10,785	2,853,911	104,571	971	22,981	8,775,196	276,573	2,970

IX. The following statements from the annual reports of the Secretary of the United States Treasury exhibits the registered, enrolled and licensed tonnage, and the total tonnage belonging to the district of New-York, in each decennial year from 1825 :

Years.	Registered.			Enrolled and Licensed.			Total.	
	Tons.	95ths.		Tons.	95ths.		Tons.	95ths.
1825,....	166,728	.. 14	..	147,756	.. 8	..	304,484	.. 22
1835,....	191,626	.. 43	..	185,071	.. 29	..	376,697	.. 72
1845,....	248,717	.. ..	..	301,642	.. 48	..	550,359	.. 48
1855,....	737,509	.. 37	..	550,725	.. 29	..	1,288,234	.. 66
1857,....	802,356	.. 10	..	575,068	.. 51	..	1,377,424	.. 61
1858,....	840,449	.. 08	..	592,256	.. 33	..	1,432,705	.. 41
1859,....	844,432	.. 24	..	599,928	.. 44	..	1,444,360	.. 68
1860,....	838,449	.. 51	..	625,551	.. 47	..	1,464,001	.. 03

X. VESSELS AND TONNAGE ENTERED INTO THE DISTRICT OF NEW-YORK, 1826—1860.

Fiscal Year.	American.			Foreign.			Total.	
	Vessels.	Tonnage.		Vessels.	Tonnage.		Vessels.	Tonnage.
1826,...	....	248,176	..	....	26,285	..	....	274,461
1830,...	....	273,790	..	....	31,391	..	....	305,181
1835,...	1,528	374,602	..	480	91,063	..	2,008	465,665
1840,...	1,443	417,443	..	512	128,488	..	1,955	545,931
1845,...	1,450	439,670	..	558	139,542	..	2,008	579,218
1850,...	1,882	734,431	..	1,281	410,900	..	3,163	1,145,331
1855,...	2,588	1,377,738	..	1,185	358,169	..	3,773	1,735,907
1857,...	3,014	1,584,764	..	1,054	450,885	..	4,068	2,035,649
1858,...	2,401	1,273,788	..	929	420,431	..	3,330	1,694,219
1859,...	2,657	1,320,290	..	1,243	569,854	..	3,902	1,890,144
1860,...	2,645	1,356,665	..	1,337	617,147	..	3,982	1,973,812

XI. STATEMENT EXHIBITING THE AMOUNT OF THE TONNAGE OF THE UNITED STATES AT VARIOUS PERIODS, ALSO THE REGISTERED, AND ENROLLED AND LICENSED TONNAGE EMPLOYED IN STEAM NAVIGATION EACH YEAR.

Years.	Registered Sail Tonnage.		Registered Steam.		Enrolled and Licensed Sail.		Enrolled and Licensed Steam.		Total Tonnage.
	Tons.		Tons.		Tons.		Tons.		Tons.
1830,.....	575,056	..	1,419	..	552,248	..	63,053	..	1,191,776 ✓
1831,.....	619,575	..	877	..	613,827	..	33,568	..	1,267,847
1832,.....	686,809	..	181	..	661,827	..	90,633	..	1,439,460
1833,.....	749,482	..	545	..	754,819	..	101,305	..	1,606,151
1834,.....	857,098	..	340	..	778,995	..	122,474	..	1,758,907
1835,.....	885,481	..	340	..	816,645	..	122,474	..	1,824,940
1845,.....	1,088,680	..	6,492	..	1,002,303	..	319,527	..	2,417,002 ✓
1846,.....	1,123,999	..	6,287	..	1,090,192	..	341,606	..	2,562,084
1847,.....	1,235,632	..	5,631	..	1,198,523	..	399,210	..	2,839,046
1848,.....	1,344,819	..	16,068	..	1,381,332	..	411,823	..	3,154,042
1849,.....	1,418,072	..	20,870	..	1,453,549	..	441,525	..	3,334,016
1850,.....	1,540,769	..	44,942	..	1,468,738	..	481,005	..	3,535,454 ✓
1851,.....	1,663,917	..	62,390	..	1,524,915	..	521,217	..	3,772,439
1852,.....	1,819,744	..	79,704	..	1,675,456	..	563,536	..	4,138,440
1853,.....	2,013,154	..	90,520	..	1,759,288	..	514,098	..	4,407,010
1854,.....	2,238,783	..	95,086	..	1,887,512	..	581,571	..	4,802,902
1855,.....	2,420,091	..	115,045	..	2,021,625	..	655,240	..	5,212,001 ✓
1856,.....	2,401,687	..	89,715	..	1,796,888	..	583,362	..	4,871,652 ✓
1857,.....	2,377,094	..	86,873	..	1,857,964	..	618,911	..	4,940,843 ✓
1858,.....	2,499,742	..	78,027	..	2,550,067	..	651,363	..	5,049,808 ✓
1859,.....	2,414,654	..	92,748	..	1,961,631	..	676,005	..	5,145,038 ✓
1860,.....	2,448,941	..	97,296	..	2,036,990	..	770,641	..	5,353,868 ✓

COMMERCIAL TREATIES WITH FOREIGN NATIONS, YEAR 1860.

I. JAPAN.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA :

A PROCLAMATION.

WHEREAS a treaty of amity and commerce between the United States and the Empire of Japan was concluded and signed by their respective plenipotentiaries at the City of Yedo, on the twenty-ninth day of July, one thousand eight hundred and fifty-eight, which treaty is word for word as follows :

The President of the United States of America and his Majesty the Ty-Coon of Japan, desiring to establish on firm and lasting foundations the relations of peace and friendship now happily existing between the two countries, and to secure the best interest of their respective citizens and subjects by encouraging, facilitating and regulating their industry and trade, have resolved to conclude a treaty of amity and commerce for this purpose, and have, therefore, named as their plenipotentiaries, that is to say : The President of the United States, His Excellency TOWNSEND HARRIS, Consul-General of the United States of America for the empire of Japan, and His Majesty the Ty-Coon of Japan, their Excellencies INO-OO-YE, Prince of Sinano, and IWASAY, Prince of Hego, who, after having communicated to each other their respective full powers, and found them to be in good and due form, have agreed upon and concluded the following articles :

ARTICLE I.

There shall henceforward be perpetual peace and friendship between the United States of America and His Majesty the Ty-Coon of Japan and his successors.

The President of the United States may appoint a diplomatic agent to reside at the city of Yedo, and consuls or consular agents to reside at any or all of the ports in Japan which are opened for American commerce by this treaty. The diplomatic agent and consul-general of the United States shall have the right to travel freely in any part of the empire of Japan from the time they enter on the discharge of their official duties.

The government of Japan may appoint a diplomatic agent to reside at Washington, and consuls or consular agents for any or all of the ports of the United States. The diplomatic agent and consul-general of Japan may travel freely in any part of the United States from the time they arrive in the country.

ARTICLE II.

The President of the United States, at the request of the Japanese

government, will act as a friendly mediator in such matters of difference as may arise between the government of Japan and any European power.

The ships of war of the United States shall render friendly aid and assistance to such Japanese vessels as they may meet on the high seas, so far as can be done without a breach of neutrality; and all American consuls residing at ports visited by Japanese vessels shall also give them such friendly aid as may be permitted by the laws of the respective countries in which they reside.

ARTICLE III.

In addition to the ports of Simoda and Hakodade, the following ports and towns shall be opened on the dates respectively appended to them, that is to say: Kanagawa, on the (4th of July, 1859) fourth day of July, one thousand eight hundred and fifty-nine; Nagasaki, on the (4th of July, 1859) fourth day of July, one thousand eight hundred and fifty-nine; Nee-e-gata, on the (1st of January, 1860) first day of January, one thousand eight hundred and sixty; Hiogo, on the (1st of January, 1863) first day of January, one thousand eight hundred and sixty-three.

If Nee-e-gata is found to be unsuitable as a harbor, another port on the west coast of Nipon shall be selected by the two governments in lieu thereof. Six months after the opening of Kanagawa, the port of Simoda shall be closed as a place of residence and trade for American citizens. In all the foregoing ports and towns American citizens may permanently reside; they shall have the right to lease ground, and purchase the buildings thereon, and may erect dwellings and warehouses. But no fortification or place of military strength shall be erected under pretence of building dwellings or warehouses; and to see that this article is observed, the Japanese authorities shall have the right to inspect, from time to time, any buildings which are being erected, altered or repaired. The place which the Americans shall occupy for their buildings, and the harbor regulations, shall be arranged by the American consul and the authorities of each place, and if they cannot agree, the matter shall be referred to and settled by the American diplomatic agent and the Japanese government.

No wall, fence or gate shall be erected by the Japanese around the place of residence of the Americans, or anything done which may prevent a free egress and ingress to the same.

From the (1st of January, 1862) first day of January, one thousand eight hundred and sixty-two, Americans shall be allowed to reside in the city of Yedo; and from the (1st of January, 1863) first day of January, one thousand eight hundred and sixty-three, in the city of Osaka, for the purposes of trade only. In each of these two cities a suitable place within which they may hire houses, and the distance they may go, shall be arranged by the American diplomatic agent and the government of Japan. Americans may freely buy from Japanese and sell to them any articles that either may have for sale, without the intervention of any Japanese officers in such purchase or sale, or in making or receiving payment for the same; and all classes of Japanese may purchase, sell, keep or use any articles sold to them by the Americans.

The Japanese government will cause this clause to be made public in every part of the empire as soon as the ratifications of this treaty shall be exchanged.

Munitions of war shall only be sold to the Japanese government and foreigners.

No rice or wheat shall be exported from Japan as cargo, but all Americans resident in Japan, and ships, for their crews and passengers, shall be furnished with sufficient supplies of the same. The Japanese government will sell, from time to time at public auction, any surplus quantity of copper that may be produced. Americans residing in Japan shall have the right to employ Japanese as servants or in any other capacity.

ARTICLE IV.

Duties shall be paid to the government of Japan on all goods landed in the country, and on all articles of Japanese production that are exported as cargo, according to the tariff hereunto appended.

If the Japanese custom-house officers are dissatisfied with the value placed on any goods by the owner, they may place a value thereon, and offer to take the goods at that valuation. If the owner refuses to accept the offer, he shall pay duty on such valuation. If the offer be accepted by the owner, the purchase-money shall be paid to him without delay, and without any abatement or discount.

Supplies for the use of the United States navy may be landed at Kana-gawa, Hakodade and Nagasaki, and stored in warehouses, in the custody of an officer of the American government, without the payment of any duty. But, if any such supplies are sold in Japan, the purchaser shall pay the proper duty to the Japanese authorities.

The importation of opium is prohibited, and any American vessel coming to Japan for the purposes of trade, having more than three (3) cattiees (four pounds avoirdupois) weight of opium on board, such surplus quantity shall be seized and destroyed by the Japanese authorities. All goods imported into Japan, and which have paid the duty fixed by this treaty, may be transported by the Japanese into any part of the empire without the payment of any tax, excise or transit duty whatever.

No higher duties shall be paid by Americans on goods imported into Japan than are fixed by this treaty, nor shall any higher duties be paid by Americans than are levied on the same description of goods if imported in Japanese vessels, or the vessels of any other nation.

ARTICLE V.

All foreign coin shall be current in Japan, and pass for its corresponding weight of Japanese coin of the same description. Americans and Japanese may freely use foreign or Japanese coin in making payments to each other.

As some time will elapse before the Japanese will be acquainted with the value of foreign coin, the Japanese government will, for the period of one year after the opening of each harbor, furnish the Americans with Japanese coin, in exchange for theirs, equal weights being given and no discount taken for recoinage. Coins of all description (with the exception of Japanese copper coin) may be exported from Japan, and foreign gold and silver uncoined.

ARTICLE VI.

Americans committing offences against Japanese shall be tried in American consular courts, and, when guilty, shall be punished according to American law. Japanese committing offences against Americans shall be tried by the Japanese authorities and punished according to Japanese

law. The consular courts shall be open to Japanese creditors, to enable them to recover their just claims against American citizens, and the Japanese courts shall in like manner be open to American citizens for the recovery of their just claims against Japanese.

All claims for forfeitures or penalties for violations of this treaty, or of the articles regulating trade which are appended hereunto, shall be sued for in the consular courts, and all recoveries shall be delivered to the Japanese authorities.

Neither the American or Japanese governments are to be held responsible for the payment of any debts contracted by their respective citizens or subjects.

ARTICLE VII.

In the opened harbors of Japan, Americans shall be free to go where they please, within the following limits :

At Kanagawa, the river Logo, (which empties into the bay of Yedo between Kawasaki and Sinagawa) and (10) ten ri in any other direction.

At Hakodade, (10) ten ri in any direction.

At Hiogo, (10) ten ri in any direction, that of Kioto excepted, which city shall not be approached nearer than (10) ten ri. The crews of vessels resorting to Hiogo shall not cross the river Enagawa, which empties into the bay between Hiogo and Osaca. The distances shall be measured inland from Goyoso, or town hall of each of the foregoing harbors, the ri being equal to (4,275) four thousand two hundred and seventy-five yards, American measure.

At Nagasaki, Americans may go into any part of the imperial domain in its vicinity. The boundaries of Nee-e-gata, or the place that may be substituted for it, shall be settled by the American diplomatic agent and the government of Japan. Americans who have been convicted of felony, or twice convicted of misdemeanors, shall not go more than (1) one Japanese ri inland from the places of their respective residences, and all persons so convicted shall lose their right of permanent residence in Japan, and the Japanese authorities may require them to leave the country.

A reasonable time shall be allowed to all such persons to settle their affairs, and the American consular authority shall, after an examination into the circumstances of each case, determine the time to be allowed, but such time shall not in any case exceed one year, to be calculated from the time the person shall be free to attend to his affairs.

ARTICLE VIII.

Americans in Japan shall be allowed the free exercise of their religion, and for this purpose shall have the right to erect suitable places of worship. No injury shall be done to such buildings, nor any insult be offered to the religious worship of the Americans. American citizens shall not injure any Japanese temple or mia, or offer any insult or injury to Japanese religious ceremonies, or to the objects of their worship.

The Americans and Japanese shall not do anything that may be calculated to excite religious animosity. The government of Japan has already abolished the practice of trampling on religious emblems.

ARTICLE IX.

When requested by the American consul, the Japanese authorities will

cause the arrest of all deserters and fugitives from justice, receive in jail all persons held as prisoners by the consul, and give to the consul such assistance as may be required to enable him to enforce the observance of the laws by the Americans who are on land, and to maintain order among the shipping. For all such service, and for the support of prisoners kept in confinement, the consul shall in all cases pay a just compensation.

ARTICLE X.

The Japanese government may purchase or construct, in the United States, ships of war, steamers, merchant ships, whale ships, cannon, munitions of war and arms of all kinds, and any other things it may require. It shall have the right to engage, in the United States, scientific, naval and military men, artisans of all kinds, and mariners to enter into its service. All purchases made for the government of Japan may be exported from the United States, and all persons engaged for its service may freely depart from the United States: *Provided*, That no articles that are contraband of war shall be exported, nor any persons engaged to act in a naval or military capacity, while Japan shall be at war with any power in amity with the United States.

ARTICLE XI.

The articles for the regulation of trade, which are appended to this treaty, shall be considered as forming a part of the same, and shall be equally binding on both the contracting parties to this treaty, and on their citizens and subjects.

ARTICLE XII.

Such of the provisions of the treaty made by Commodore Perry, and signed at Kanagawa, on the 31st of March, 1854, as conflict with the provisions of this treaty, are hereby revoked; and as all the provisions of a convention executed by the consul-general of the United States and the governors of Simoda, on the 17th of June, 1857, are incorporated in this treaty, that convention is also revoked.

The person charged with the diplomatic relations of the United States in Japan, in conjunction with such person or persons as may be appointed for that purpose by the Japanese government, shall have power to make such rules and regulations as may be required to carry into full and complete effect the provisions of this treaty, and the provisions of the articles regulating trade appended thereunto.

ARTICLE XIII.

After the (4th of July, 1872) fourth day of July, one thousand eight hundred and seventy-two, upon the desire of either the American or Japanese governments, and on one year's notice given by either party, this treaty, and such portions of the treaty of Kanagawa as remain unrevoked by this treaty, together with the regulations of trade hereunto annexed, or those that may be hereafter introduced, shall be subject to revision by commissioners appointed on both sides for this purpose, who will be empowered to decide on, and insert therein, such amendments as experience shall prove to be desirable.

ARTICLE XIV.

This treaty shall go into effect on the (4th of July, 1859,) fourth

day of July, in the year of our Lord one thousand eight hundred and fifty-nine, on or before which day the ratifications of the same shall be exchanged at the city of Washington ; but if, from any unforeseen cause, the ratifications cannot be exchanged by that time, the treaty shall still go into effect at the date above mentioned.

The act of ratification on the part of the United States shall be verified by the signature of the President of the United States, countersigned by the Secretary of State, and sealed with the seal of the United States.

The act of ratification on the part of Japan shall be verified by the name and seal of His Majesty the Ty-Coon, and by the seals and signatures of such of his high officers as he may direct.

This treaty is executed in quadruplicate, each copy being written in the English, Japanese and Dutch languages, all the versions having the same meaning and intention, but the Dutch version shall be considered as being the original.

In witness whereof, the above-named plenipotentiaries have hereunto set their hands and seals, at the city of Yedo, this twenty-ninth day of July, in the year of our Lord one thousand eight hundred and fifty-eight, and of the independence of the United States of America the eighty-third, corresponding to the Japanese era, the nineteenth day of the sixth month of the fifth year of Ansei Mma.

TOWNSEND HARRIS. [SEAL.]

Regulations under which American Trade is to be conducted with Japan.

Within (48) forty-eight hours (Sundays excepted) after the arrival of an American ship in a Japanese port, the captain or commander shall exhibit to the Japanese custom-house authorities the receipt of the American consul, showing that he has deposited the ship's register and other papers, as required by the laws of the United States, at the American consulate, and he shall then make an entry of his ship, by giving a written paper, stating the name of the ship, and the name of the port from which she comes, her tonnage, the name of her captain or commander, the names of her passengers, (if any,) and the number of her crew, which paper shall be certified by the captain or commander to be a true statement, and shall be signed by him ; he shall at the same time deposit a written manifest of his cargo, setting forth the marks and numbers of the packages and their contents, as they are described in his bills of lading, with the names of the person or persons to whom they are consigned. A list of the stores of the ship shall be added to the manifest. The captain or commander shall certify the manifest to be a true account of all the cargo and stores on board the ship, and shall sign his name to the same. If any error is discovered in the manifest, it may be corrected within (24) twenty-four hours (Sundays excepted) without the payment of any fee ; but for any alteration or post entry to the manifest made after that time, a fee of (\$15) fifteen dollars shall be paid. All goods not entered on the manifest shall pay double duties on being landed. Any captain or commander that shall neglect to enter his vessel at the Japanese custom-house within the time prescribed by this regulation, shall pay a penalty of (\$60) sixty dollars for each day that he shall so neglect to enter his ship.

The Japanese government shall have the right to place custom-house officers on board of any ship in their ports (men-of-war excepted.) All custom-house officers shall be treated with civility, and such reasonable accommodation shall be allotted to them as the ship affords. No goods shall be unladen from any ship between the hours of sunset and sunrise, except by special permission of the custom-house authorities, and the hatches, and all other places of entrance into that part of the ship where the cargo is stowed, may be secured by Japanese officers, between the hours of sunset and sunrise, by affixing seals, locks or other fastenings; and if any person shall, without due permission, open any entrance that has been so secured, or shall break or remove any seal, lock or other fastening that has been affixed by the Japanese custom-house officers, every person so offending shall pay a fine of (\$60) sixty dollars for each offence. Any goods that shall be discharged or attempted to be discharged from any ship, without having been duly entered at the Japanese custom-house, as hereinafter provided, shall be liable to seizure and confiscation.

Packages of goods made up with an attempt to defraud the revenue of Japan, by concealing therein articles of value which are not set forth in the invoice, shall be forfeited.

American ships that shall smuggle or attempt to smuggle goods in any of the non-opened harbors of Japan, all such goods shall be forfeited to the Japanese government, and the ship shall pay a fine of (\$1,000) one thousand dollars for each offence. Vessels needing repairs may land their cargo for that purpose without the payment of duty. All goods so landed shall remain in charge of the Japanese authorities, and all just charges for storage, labor and supervision shall be paid thereon. But if any portion of such cargo be sold, the regular duties shall be paid on the portion so disposed of. Cargo may be transhipped to another vessel in the same harbor without the payment of duty; but all transshipments shall be made under the supervision of Japanese officers, and after satisfactory proof has been given to the custom-house authorities of the *bona fide* nature of the transaction, and also under a permit to be granted for that purpose by such authorities. The importation of opium being prohibited, if any person or persons shall smuggle, or attempt to smuggle, any opium, he or they shall pay a fine of (\$15) fifteen dollars for each catty of opium so smuggled or attempted to be smuggled; and if more than one person shall be engaged in the offence, they shall collectively be held responsible for the payment of the foregoing penalty.

The owner or consignee of any goods, who desires to land them, shall make an entry of the same at the Japanese custom-house. The entry shall be in writing, and shall set forth the name of the person making the entry, and the name of the ship in which the goods were imported, and the marks, numbers, packages and contents thereof, with the value of each package extended separately in one amount, and at the bottom of the entry shall be placed the aggregate value of all the goods contained in the entry. On each entry, the owner or consignee shall certify, in writing, that the entry then presented exhibits the actual cost of the goods, and that nothing has been concealed whereby the customs of Japan would be defrauded; and the owner or consignee shall sign his name to such certificate.

The original invoice or invoices of the goods so entered shall be pre-

sented to the custom-house authorities, and shall remain in their possession until they have examined the goods contained in the entry.

The Japanese officers may examine any or all of the packages so entered, and for this purpose may take them to the custom-house, but such examination shall be without expense to the importer or injury to the goods, and after examination, the Japanese shall restore the goods to their original condition in the packages, (so far as may be practicable,) and such examination shall be made without any unreasonable delay.

If any owner or importer discovers that his goods have been damaged on the voyage of importation before such goods have been delivered to him, he may notify the custom-house authorities of such damage, and he may have the damaged goods appraised by two or more competent and disinterested persons, who, after due examination, shall make a certificate setting forth the amount per cent. of damage on each separate package, describing it by its mark and number, which certificates shall be signed by the appraisers in presence of the custom-house authorities, and the importer may attach the certificate to his entry, and make a corresponding deduction from it. But this shall not prevent the custom-house authorities from appraising the goods in the manner provided in article fourth of the treaty, to which these regulations are appended.

After the duties have been paid, the owner shall receive a permit authorizing the delivery to him of the goods, whether the same are at the custom-house or on ship-board. All goods intended to be exported shall be entered at the Japanese custom-house before they are placed on ship-board. The entry shall be in writing, and shall state the name of the ship by which the goods are to be exported, with the marks and numbers of the packages, and the quantity, description and value of their contents. The exporter shall certify in writing that the entry is a true account of all the goods contained therein, and shall sign his name thereto. Any goods that are put on board of a ship for exportation before they have been entered at the custom-house, and all packages which contain prohibited articles, shall be forfeited to the Japanese government.

No entry at the custom-house shall be required for supplies for the use of ships, their crews and passengers, nor for the clothing, &c., of passengers.

Ships wishing to clear shall give (24) twenty-four hours' notice at the custom-house, and at the end of that time they shall be entitled to their clearance; but if it be refused, the custom-house authorities shall immediately inform the captain or consignee of the ship of the reasons why the clearance is refused, and they shall also give the same notice to the American consul.

Ships of war of the United States shall not be required to enter or clear at the custom-house, nor shall they be visited by Japanese custom-house or police officers. Steamers carrying the mails of the United States may enter and clear on the same day, and they shall not be required to make a manifest, except for such passengers and goods as are to be landed in Japan. But such steamers shall, in all cases, enter and clear at the custom-house.

Whale ships touching for supplies, or ships in distress, shall not be required to make a manifest of their cargo; but if they subsequently wish to trade, they shall then deposit a manifest, as required in regulation first.

The word ship, wherever it occurs in these regulations, or in the treaty to which they are attached, is to be held as meaning ship, bark, brig, schooner, sloop or steamer.

Any person signing a false declaration or certificate, with the intent to defraud the revenue of Japan, shall pay a fine of (\$125) one hundred and twenty-five dollars for each offence.

No tonnage duties shall be levied on American ships in the ports of Japan, but the following fees shall be paid to the Japanese custom-house authorities: For the entry of a ship, (\$15,) fifteen dollars. For the clearance of a ship, (\$7,) seven dollars. For each permit, (\$1½,) one dollar and a half. For each bill of health, (\$1½,) one dollar and a half. For any other document, (\$1½,) one dollar and a half.

Duties shall be paid to the Japanese government on all goods landed in the country according to the following tariff:

Class One.—All articles in this class shall be free of duty. Gold and silver coined or uncoined. Wearing apparel in actual use. Household furniture and printed books not intended for sale, but the property of persons who come to reside in Japan.

Class Two.—A duty of (5) five per cent. shall be paid on the following articles:

All articles used for the purpose of building, rigging, repairing or fitting out of ships. Whaling gear of all kinds. Salted provisions of all kinds. Bread and breadstuffs. Living animals of all kinds. Coals. Timber for building houses. Rice. Paddy. Steam machinery. Zinc. Lead. Tin. Raw silk.

Class Three.—A duty of (35) thirty-five per cent. shall be paid on all intoxicating liquors, whether prepared by distillation, fermentation or in any other manner.

Class Four.—All goods not included in any of the preceding classes shall pay a duty of (20) twenty per cent.

All articles of Japanese production, which are exported as cargo, shall pay a duty of (5) five per cent., with the exception of gold and silver coin and copper in bars. (5) Five years after the opening of Kanagawa the import and export duties shall be subject to revision if the Japanese government desires it.

TOWNSEND HARRIS. [L. S.]

II. CONVENTION WITH PARAGUAY.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA:

A PROCLAMATION.

WHEREAS a convention relating to the claims of the "United States and Paraguay Navigation Company," against the Paraguayan government, was concluded between the United States of America and the Republic of Paraguay, and was signed by their respective plenipotentiaries at Asuncion on the fourth day of February, one thousand eight hundred

and fifty-nine, the original of which convention being in the English and Spanish languages, is, word for word, as follows:

Special convention between the United States of America and the Republic of Paraguay, relating to the claims of the "United States and Paraguayan Navigation Company" against the Paraguayan government.

His Excellency the President of the United States of America and his Excellency the President of the Republic of Paraguay, desiring to remove every cause that might interfere with the good understanding and harmony, for a time so unhappily interrupted between the two nations, and now so happily restored, and which it is so much for their interest to maintain; and desiring for this purpose to come to a definite understanding, equally just and honorable to both nations, as to the mode of settling a pending question of the said claims of the "United States and Paraguay Navigation Company"—a company composed of citizens of the United States—against the government of Paraguay, have agreed to refer the same to a special and respectable commission, to be organized and regulated by the convention hereby established between the two high contracting parties; and for this purpose they have appointed and conferred full powers, respectively, to wit:

His Excellency the President of the United States of America upon JAMES B. BOWLIN, a Special Commissioner of the said United States of America, specifically charged and empowered for this purpose; and his Excellency the President of the Republic of Paraguay upon Señor NICOLAS VASQUEZ, Secretary of State and Minister of Foreign Affairs of the said Republic of Paraguay, who, after exchanging their full powers, which were found in good and proper form, agreed upon the following articles:

ARTICLE I.

The government of the Republic of Paraguay binds itself for the responsibility in favor of the "United States and Paraguay Navigation Company," which may result from the decree of commissioners, who, it is agreed, shall be appointed as follows.

ARTICLE II.

The two high contracting parties, appreciating the difficulty of agreement upon the amount of the reclamations to which the said company may be entitled, and being convinced that a commission is the only equitable and honorable method by which the two countries can arrive at a perfect understanding thereof, hereby covenant to adjust them accordingly by a loyal commission. To determine the amount of said reclamations it is therefore agreed to constitute such a commission, whose decision shall be binding, in the following manner:

The government of the United States of America shall appoint one commissioner, and the government of Paraguay shall appoint another; and these two, in case of disagreement, shall appoint a third, said appointment to devolve upon a person of loyalty and impartiality, with the condition that, in case of difference between the commissioners in the choice of an umpire, the diplomatic representatives of Russia and Prussia, accredited to the government of the United States of America, at the city of Washington, may select such umpire.

The two commissioners named in the said manner shall meet in the city of Washington, to investigate, adjust and determine the amount of the claims of the above-mentioned company, upon sufficient proofs of the charges and defences of the contending parties.

ARTICLE III.

The said commissioners, before entering upon their duties, shall take an oath before some judge of the United States of America that they will fairly and impartially investigate the said claims, and a just decision thereupon render, to the best of their judgment and ability.

ARTICLE IV.

The said commissioners shall assemble, within one year after the ratification of the "treaty of friendship, commerce and navigation" this day celebrated at the city of Assumption, between the two high contracting parties, at the city of Washington, in the United States of America, and shall continue in session for a period not exceeding three months, within which, if they come to an agreement, their decision shall be proclaimed; and in case of disagreement, they shall proceed to the appointment of an umpire, as already agreed.

ARTICLE V.

The government of Paraguay hereby binds itself to pay to the government of the United States of America, in the city of Assumption, Paraguay, thirty days after presentation to the government of the republic, the draft which that of the United States of America shall issue for the amount for which the two commissioners concurring, or by the umpire, shall declare it responsible to the said company.

ARTICLE VI.

Each of the high contracting parties shall compensate the commissioner it may appoint the sum of money he may stipulate for his services, either by instalments or at the expiration of his task. In case of the appointment of an umpire, the amount of his remuneration shall be equally borne by both contracting parties.

ARTICLE VII.

The present convention shall be ratified within fifteen months, or earlier if possible, by the government of the United States of America, and by the President of the Republic of Paraguay, within twelve days from this date. The exchange of ratifications shall take place in the city of Washington.

In faith of which, and in virtue of our full powers, we have signed the present convention in English and Spanish, and have hereunto set our respective seals.

Done at Assumption this fourth day of February, in the year of our Lord one thousand eight hundred and fifty-nine, being the eighty-third year of the independence of the United States of America, and the forty-seventh of that of Paraguay.

JAMES B. BOWLIN, [SEAL.]
NICOLAS VASQUEZ, [SEAL.]

III. TREATY WITH PARAGUAY.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA:

A PROCLAMATION.

WHEREAS a treaty of friendship, commerce and navigation, between the United States of America and the Republic of Paraguay, was concluded and signed by their respective plenipotentiaries, at Asuncion, on the fourth day of February, one thousand eight hundred and fifty-nine, the original of which treaty being in the English and Spanish languages, is, word for word, as follows:

A treaty of friendship, commerce and navigation between the governments of the United States of America and of the Republic of Paraguay, concluded and signed in the city of Assumption, the capital of the Republic of Paraguay, on the fourth day of February, in the year of our Lord one thousand eight hundred and fifty-nine, the eighty-third year of the independence of the United States of America, and the forty-seventh of that of the Republic of Paraguay.

In the name of the Most Holy Trinity! The governments of the two republics, the United States of America and of Paraguay, in South America, being mutually disposed to cherish more intimate relations and intercourse than those which have heretofore subsisted between them, and believing it to be of mutual advantage to adjust the conditions of such relations by signing a "treaty of friendship, commerce and navigation," for that object have nominated their respective plenipotentiaries, that is to say: His Excellency the President of the United States of America has nominated JAMES B. BOWLIN a Special Commissioner of the United States of America, at Assumption, and His Excellency the President of the Republic of Paraguay has nominated the Paraguayan citizen, NICOLAS VASQUEZ, Secretary of State and Minister of Foreign Relations of the Republic of Paraguay, who, after having communicated competent authorities, have agreed upon and concluded the following articles:

ARTICLE I.

There shall be perfect peace and sincere friendship between the government of the United States of America and the government of the Republic of Paraguay, and between the citizens of both States, and without exception of persons or places. The high contracting parties shall use their best endeavors that this friendship and good understanding may be constantly and perpetually maintained.

ARTICLE II.

The Republic of Paraguay, in the exercise of the sovereign right which pertains to her, concedes to the merchant flag of the citizens of the United States of America the free navigation of the river Paraguay, as far as the dominions of the Empire of Brazil, and of the right side of the Paraná, throughout all its course belonging to the republic, subject to police and fiscal regulations of the supreme government of the republic, in conformity with its concessions to the commerce of friendly nations. They shall be at liberty, with their ships and cargoes, freely and securely to

come to and to leave all the places and ports which are already mentioned; to remain and reside in any part of the said territories, hire houses and warehouses, and trade in all kinds of produce, manufactures and merchandise of lawful commerce, subject to the usages and established customs of the country. They may discharge the whole or a part of their cargoes at the ports of Pilar, and where commerce with other nations may be permitted, or proceed with the whole or part of their cargo to the port of Assumption, according as the captain, owner or other duly authorized person shall deem expedient.

In the same manner shall be treated and considered such Paraguayan citizens as may arrive at the ports of the United States of America, with cargoes in Paraguayan vessels, or vessels of the United States of America.

ARTICLE III.

The two high contracting parties hereby agree that any favor, privilege or immunity whatever in matters of commerce or navigation, which either contracting party has actually granted, or may hereafter grant to the citizens or subjects of any other State, shall extend, in identity of cases and circumstances, to the citizens of the other contracting party gratuitously, if the concession in favor of that other State shall have been gratuitous, or in return for an equivalent compensation, if the concession shall have been conditional.

ARTICLE IV.

No other or higher duties shall be imposed on the importation or exportation of any article of the growth, produce or manufacture of the two contracting States than are or shall be payable on the like article being the growth, produce or manufacture of any other foreign country. No prohibition shall be imposed upon the importation or exportation of any article of the growth, produce or manufacture of the territories of either of the two contracting parties into the territories of the other, which shall not equally extend to the importation or exportation of similar articles to the territories of any other nation.

ARTICLE V.

No other or higher duties or charges on account of tonnage, light or harbor dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed in any of the ports of the territories of the Republic of Paraguay on vessels of the United States of America than those payable in the same ports by Paraguayan vessels, nor in the ports of the territories of the United States of America on Paraguayan vessels than shall be payable in the same ports by vessels of the United States of America.

ARTICLE VI.

The same duties shall be paid upon the importation and exportation of any article which is or may be legally importable or exportable into the dominions of the United States of America and into those of Paraguay, whether such importation or exportation be made in vessels of the United States of America, or in Paraguayan vessels.

ARTICLE VII.

All vessels which, according to the laws of the United States of America, are to be deemed vessels of the United States of America, and all vessels which, according to the laws of Paraguay, are to be deemed Paraguayan vessels, shall, for the purposes of this treaty, be deemed vessels of the United States of America and Paraguayan vessels respectively.

ARTICLE VIII.

Citizens of the United States of America shall pay, in territories of the Republic of Paraguay, the same import and export duties which are established or may be established hereafter for Paraguayan citizens. In the same manner the latter shall pay, in the United States of America, the duties which are established, or may hereafter be established for citizens of the United States of America.

ARTICLE IX.

All merchants, commanders of ships and others, the citizens of each country respectively, shall have full liberty, in all the territories of the other, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as agent, broker, factor or interpreter; and they shall not be obliged to employ any other persons than those employed by natives, nor to pay to such persons as they shall think fit to employ any higher salary or remuneration than such as is paid in like cases by natives.

The citizens of the United States of America in the territories of Paraguay, and the citizens of Paraguay in the United States of America, shall enjoy the same full liberty which is now or may hereafter be enjoyed by natives of each country respectively, to buy from and sell to whom they like all articles of lawful commerce, and to fix the prices thereof as they shall see good, without being affected by any monopoly, contract or exclusive privilege of sale or purchase, subject, however, to the general ordinary contributions or imposts established by law.

The citizens of either of the two contracting parties in the territories of the other shall enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice for the prosecution and defence of their just rights; they shall enjoy, in this respect, the same rights and privileges as native citizens, and they shall be at liberty to employ, in all cases, the advocates, attorneys or agents of whatever description, whom they may think proper.

ARTICLE X.

In whatever relates to the police of the ports, the lading or unlading of ships, the warehousing and safety of merchandise, goods and effects, the succession to personal estates, by will or otherwise, and the disposal of personal property of every sort and denomination, by sale, donation, exchange or testament, or in any other manner whatsoever, as also with regard to the administration of justice, the citizens of each contracting party shall enjoy, in the territories of the other, the same privileges, liberties and rights as native citizens, and shall not be charged, in any of these respects, with any other or higher imposts or duties than those

which are or may be paid by native citizens, subject always to the local laws and regulations of such territories.

In the event of any citizen of either of the two contracting parties dying without will or testament in the territory of the other contracting party, the consul-general, consul or vice-consul of the nation to which the deceased may belong, or, in his absence, the representative of such consul-general, consul or vice-consul shall, so far as the laws of each country will permit, take charge of the property which the deceased may have left, for the benefit of his lawful heirs and creditors, until an executor or administrator be named by the said consul-general, consul or vice-consul, or his representative.

ARTICLE XI.

The citizens of the United States of America residing in the territories of the Republic of Paraguay, and the citizens of the Republic of Paraguay, residing in the United States of America, shall be exempted from all compulsory military service whatsoever, whether by sea or land, and from all forced loans or military exactions or requisitions; and they shall not be compelled to pay any charges, requisition or taxes other or higher than those that are or may be paid by native citizens.

ARTICLE XII.

It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the territories of the other party; but before any consul shall act as such, he shall, in the usual form, be approved and admitted by the government to which he is sent; and either of the two contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be excepted.

The diplomatic agents and consuls of the United States of America in the territories of the Republic of Paraguay shall enjoy whatever privileges, exemptions and immunities are or may be there granted to the diplomatic agents and consuls of any other nation whatever; and, in like manner, the diplomatic agents and consuls of the Republic of Paraguay in the United States of America shall enjoy whatever privileges, exemptions and immunities are or may be there granted to agents of any other nation whatever.

ARTICLE XIII.

For the better security of commerce between the citizens of the United States of America and the citizens of the Republic of Paraguay, it is agreed that if at any time any interruption of friendly intercourse or any rupture should unfortunately take place between the two contracting parties, the citizens of either of the said contracting parties, who may be established in the territories of the other in the exercise of any trade or special employment, shall have the privilege of remaining and continuing such trade or employment therein without any manner of interruption, in full enjoyment of their liberty and property, as long as they behave peaceably and commit no offence against the laws; and their goods and effects, of whatever description they may be, whether in their own custody or entrusted to individuals or to the State, shall not be liable to seizure or sequestration, or to any other charges or demands than those

which may be made upon the like effects or property belonging to native citizens. If, however, they prefer to leave the country, they shall be allowed the time they may require to liquidate their accounts and dispose of their property, and a safe conduct shall be given them to embark at the ports which they shall themselves select. Consequently, in the case referred to of a rupture, the public funds of the contracting States shall never be confiscated, sequestered or detained.

ARTICLE XIV.

The citizens of either of the two contracting parties residing in the territories of the other shall enjoy, in regard to their houses, persons and properties, the protection of the government in as full and ample a manner as native citizens.

In like manner the citizens of each contracting party shall enjoy, in the territories of the other, full liberty of conscience, and shall not be molested on account of their religious belief; and such of those citizens as may die in the territories of the other party shall be buried in the public cemeteries, or in places appointed for the purpose, with suitable decorum and respect.

The citizens of the United States of America, residing within the territories of the Republic of Paraguay, shall be at liberty to exercise, in private and in their own dwellings, or within the dwellings or offices of consuls or vice-consuls of the United States of America, their religious rites, services and worship, and to assemble therein for that purpose, without hindrance or molestation.

ARTICLE XV.

The present treaty shall be in force during ten years, counted from the day of the exchange of the ratifications; and further, until the end of twelve months after the government of the United States of America, on the one part, or the government of Paraguay on the other, shall have given notice of its intention to terminate the same.

The Paraguayan government shall be at liberty to address to the government of the United States of America, or to its representative in the Republic of Paraguay, the official declaration agreed upon in this article.

ARTICLE XVI.

The present treaty shall be ratified by His Excellency the President of the United States of America within the term of fifteen months, or earlier if possible, and by His Excellency the President of the Republic of Paraguay within twelve days from this date, and the ratifications shall be exchanged in Washington.

In witness whereof, the respective plenipotentiaries have signed it, and affixed thereto their seals.

Done at Assumption, this fourth day of February, in the year of our Lord one thousand eight hundred and fifty-nine.

JAMES B. BOWLIN,	[SEAL.]
NICOLAS VASQUEZ.	[SEAL.]

CHAMBERS OF COMMERCE AND BOARDS OF TRADE.

*Monthly Meeting of the Chamber of Commerce, New-York, Wednesday,
July 3, 1861.*

THE monthly meeting of the Chamber of Commerce, N. Y., was held on Wednesday, (the regular day falling on July 4th,) at one o'clock—P. PERIT, Esq., President, in the chair.

Harbor Defences.—MR. GEORGE OPDYKE, Chairman of the Committee on the present defences of the harbor of New-York, reported that the Committee, in performing the duty assigned them, visited a portion of the fortifications in person, and, though unable to find leisure to visit the whole, they had such information, from reliable sources, that they believed they had exact knowledge of the present condition of all the forts and their armaments, and had accordingly drawn up the following memorial :

New-York, July 3, 1861.

*To the Honorable the Congress of the United States, in Senate and House
of Representatives convened :*

The Chamber of Commerce of the State of New-York respectfully represent, that the defences of the harbor of New-York require the immediate attention of government. In their present neglected condition they are unworthy of the government, and utterly unreliable as a means of defence. A hostile fleet might pass them with little or no risk of injury, and lay the city in ashes. In proof of this, the following details are respectfully submitted :

Fort Schuyler, the only defensive work that protects the city from approaches by way of the East River, is without armament.

Fort Richmond, Staten Island, the only modern and substantial work that commands the main entrance to the harbor, is also without armament.

Fort Tompkins, situated on the heights back of Fort Richmond, and chiefly intended to protect the latter from land attacks, is unfinished, and the work on it entirely suspended.

The projected fortress at Sandy Hook, the largest and most important of all our harbor defences, is in the earlier stages of its construction, and unless the appropriations for it are increased, many months must elapse before it will be in readiness to receive any portion of its armament.

Fort Hamilton, on the Long Island side of the Narrows, has a few inferior guns mounted, as has also the breastworks opposite on Staten Island.

Fort Lafayette, at the Narrows, has a full armament of inferior guns ; but it is an old fort, of little strength.

The fortifications on Bedlow's Island and Governor's Island are well supplied with guns, chiefly of the old style ; but the proximity of these forts to the city renders them altogether inadequate as a means of protecting it from the shells and heavy metal of iron-cased steamers.

These constitute the harbor defences of New-York. It will be seen from the foregoing details that, in their present condition, they afford very inadequate protection to the city against the approaches of a hostile fleet. It is generally believed that the civil war in which we are now involved renders our foreign relations so critical, that we are liable at any moment to be precipitated into a foreign war. Under these circumstances, common prudence demands that government should promptly provide for the safety of the commercial emporium of the nation, by making its defences so strong and perfect, that they will be able to repel any possible combination of naval force. Your memorialists believe that, to secure this end, it is only necessary—

First.—To furnish all the existing fortifications with new armament, of the heaviest metal and most approved style, and with proper garrisons.

Second.—To complete, at the earliest possible moment, the fortifications at Sandy Hook, and Fort Tompkins on Staten Island.

Third.—To construct floating batteries of iron, to guard the Swash and minor channels, and to aid the forts in repelling or sinking iron-cased steamers.

It is believed that these means would be ample to resist all the accumulated power that steam iron-clad hulls and rifle cannon have given to ships of war. The manning and re-arming the forts with new guns, of the most approved style, may be done promptly and at little expense ; and the defenceless condition of the city demands that it should be done at once. The completion of the two forts in progress, and the construction of the floating batteries, will require time and a liberal expenditure of money ; but this your memorialists venture to hope will be given cheerfully.

Hitherto the defences of New-York have been sadly neglected, and yet she has peculiar claims on government to provide liberally for her safety. She is the commercial and financial centre of the nation—the heart, whose pulsations give vitality to its industry and credit—and munificent contributions in men and money, to sustain the government in its hour of greatest peril, gives ample assurances that the means of defence placed at her command will never be used against the government or its friends.

The facts, thus briefly stated, demonstrate the necessity of prompt action in the premises, and at the same time warrant your memorialists in asking, respectfully, that your honorable bodies will make early and liberal appropriations for the objects referred to.

Mr. OPDYKE presented the following resolution, by order of the committee, which was unanimously passed :

Resolved, That copies of the foregoing memorial, duly attested by the officers of the Chamber, be forwarded to the President of the United States and to both Houses of Congress, and that a committee be appointed to proceed to Washington for the purpose of enforcing its views,

and urging upon the executive and upon Congress the necessity of prompt action.

Mr. OPDYKE continued : While upon this subject I may state to the Chamber that there was placed in the hands of the committee an application from some gentlemen, who are engaged in getting up a local artillery battalion for harbor and coast defences, for material aid. The committee not having any power to give funds for the purpose, yet deeming the object a most worthy one, submit to the Chamber the following :

Resolved, That the local artillery battalion which it is proposed to equip and drill for harbor and coast defences, would prove a most valuable auxiliary to the defences of the city. The Chamber therefore heartily commends its appeals for equipments and other aid to the favorable consideration of the State Military Board and to the liberality of the citizens of New-York.

On motion, the report was adopted.

Mr. PHELPS, before adopting the memorial and resolution, wished an amendment to that portion which stated that "the civil war in which we are now involved renders our foreign relations so critical that we are likely at any moment to be precipitated into foreign war." He did not think there was any such danger of rupture, and did not wish such a statement to issue from the Chamber.

Mr. OPDYKE said that every member of the Chamber could judge of the ill-feeling engendered between the people of this country and the government of Great Britain. It was well known that the ramifications of our commerce, extending over the civilized world, necessarily interfered with the interests and ambitious views of other countries, and rendered us at any moment liable to the calamity of a foreign war. Though not likely to occur, there was a liability to it ; and it was to meet just such a contingency that we were seeking to make our harbor defences efficient.

Mr. PHELPS was sorry to hear any suggestion of an unpleasant feeling existing between our government and that of Great Britain. He had heard it stated by Lord LYONS that nothing but the most friendly relations existed ; for his own part, he believed that neither the British government nor the people wished us any thing but peace and prosperity.

Mr. BLOODGOOD was in favor of the language of the memorial. Within a few days he had received from Havre a French paper, containing correspondence between the merchants of Havre and the Minister in Paris. The merchants state that they fear the commerce of France may suffer from the state of things in this country, to which the Minister replies that he thanks them for their advice, but the French government means to sustain her rights on this side of the world, and adds, that "*between the two fractions of the once United States of America, we will take care that the French flag is respected.*" Mentioning this to a well-known diplomatist, he remarked : "For God's sake, do not make that public." It seemed to have escaped the attention of the New-York editors, who were spending more time in looking for office than for the good of the country.

Mr. HOTALING fully coincided with the language of the report. Whether we had foreign wars or not, our harbor defences should be put in different repair.

The memorial and accompanying resolutions were adopted unani-

mously, and the following gentlemen were named by the president as the committee to present the memorial to Congress:

GEORGE OPDYKE,	ROBERT B. MINTURN,
GEORGE W. BLUNT,	A. A. LOW,
CHARLES H. MARSHALL,	LLOYD ASPINWALL,
DENNING DUER,	AUGUSTUS C. RICHARDS,
EZRA NYE,	JOHN D. JONES.

Portrait of a Pirate.—Mr. GEORGE W. BLUNT moved that the portrait of Captain WILSON, master of the MINNIE SCHIFFER, who acted so bravely in rescuing the lives of a large number of persons, but who had now turned pirate, commanding a privateer from New-Orleans, be taken from the walls of the Chamber.

The Chairman suggested that it could be removed, and probably the subscribers to a service of plate intended for Captain WILSON, but not yet delivered, might, under the circumstances, desire to give it some other destination.

A portrait of the Hon. S. P. CHASE, Secretary of the Treasury, (life size,) was exhibited to the members. The artist offers to sell this portrait and donate the proceeds to the fund for the relief of the New-York volunteers.

The Secretary reported that a copy of the map of Virginia, Maryland and Delaware, published by Messrs. E. & G. W. BLUNT, had been presented by that firm to the Chamber, also a copy of the New-York Shippers and Consignees' Guide, by Messrs. BAKER & GODWIN.

The following new members were elected, after which the Chamber adjourned:

HUGH N. CAMP,	THOMAS RICHARDSON,
SAMUEL COLGATE,	JAMES A. ROOSEVELT,
CHARLES DIMON,	THEODORE ROOSEVELT,
JOHN EADIE,	BARNET L. SOLOMON.
WILLIAM LYELL,	

PROTECTION OF THE HARBOR OF NEW-YORK.

A Local Artillery Battalion Suggested.—The following memorial has been addressed to Governor MORGAN by prominent gentlemen of this city:

To his Excellency EDWIN D. MORGAN, *Governor of the State of New-York:*

The undersigned, merchants and property owners of the city of New-York, respectfully represent, that inasmuch as the present emergencies of the government may, and probably will, require all the available forces of the regular service to be engaged in active operations, and that our harbor and forts may consequently be left with a force insufficient for its protection, it is deemed imperative that a *Local Artillery Battalion*, completely drilled by experienced officers, should be organized and equipped at once; and as the undersigned are informed that competent officers are available for such service, and that one company of experienced men is already formed and capable of performing this service, which would form a nucleus for the organization, we respectfully request that such a battalion may be organized at once.

In the report of the Military Commission to Europe it is well stated that "our regular army never can, and perhaps never ought to be large enough to provide for all the contingencies that may arise, but it should be as large as its ordinary avocations in the defence of the frontier will justify; and the greatest possible care should be bestowed upon the instruction in the special arms of the artillery and engineer troops.

"The militia and volunteer system should be placed upon some tangible and effective basis; instructions furnished them from the regular army, and all possible means taken to spread sound military information among them. In the vicinity of our sea-coast fortifications, it would be well to provide a sufficient number of volunteer companies, with the means of instruction in heavy artillery; detailing officers of the regular artillery as instructors. In the time of war, or when war is imminent, local companies of regular artillery might easily be enlisted for short terms of service, or for the war, in sea-coast towns. The same thing might advantageously be carried into effect on a small scale in time of peace."—*McClellan's Report.*

These remarks, which are the deductions of scientific and military men, need no argument from us to corroborate their worth, and are to us a convincing proof of the necessities of the organization referred to.

All of which we respectfully submit for your Excellency's consideration.

BROWN, BROTHERS & Co.,

GOODHUE & Co.,

HOWLAND & ASPINWALL,

GRINNELL, MINTURN & Co.,

MOSES TAYLOR & Co.,

N. L. GRISWOLD,

A. A. LOW & BROTHER,

C. H. MARSHALL,

P. PERIT,

RICHARD LATHERS,

WM. WHITLOCK, JR.

JOURNAL OF MINING AND MANUFACTURES.

NEW SILVER ALLOY—STATISTICS OF LOWELL—MICHIGAN COPPER MINES—FRENCH WINES—FLAX COTTON—NEW MINERAL DISCOVERIES IN CALIFORNIA.

NEW SILVER ALLOY.

A BEAUTIFUL new alloy is stated by foreign contemporaries to have been invented recently, after many experiments, by Messrs. DE RUOLZ and DE FONTENAY, France. It is said to be well adapted for small coins and industrial purposes. It consists of one-third silver united with 25 to 30 per cent. of nickel, and from 37 to 42 of copper. Phosphorus is used as a flux in making the metals combine, but when first made and cooled it is very brittle. To render it ductile, the phosphorus must all be removed by reheating, after which the alloy resembles a simple metal, and presents in a very high degree the qualities to which the precious metals owe their superiority. It resembles platinum and silver of $\frac{1}{1000}$ in color; it takes a very brilliant polish. Its tenacity and hardness are extreme. It is ductile, malleable and very difficult of fusion; very sonorous, unalterable in the air, and attacked only by the most energetic re-agents. It has no odor, and its specific gravity is but little inferior to that of silver. It is

easy to estimate the important part such an alloy is calculated to play in the industrial arts, and especially in the silversmith's art—in, to a great extent, replacing silver, of which its price is 40 per cent. less, and as its hardness gives it a marked superiority. Again, articles which are merely silvered or gilt have, it is true, a great advantage in their low price; but they quickly deteriorate, and can be re-silvered or regilt only a very few times, after which they must be replaced by new ones, and, in the long run, entail such an outlay as to confirm the old adage, that “the cheapest is the dearest in the end.”

STATISTICS OF LOWELL MANUFACTURES.

Capital stock,.....	\$ 13,900,000
Number of mills,.....	No., 54
Spindles,.....	403,696
Looms,.....	12,190
Females employed,.....	8,405
Males employed,.....	3,979
Yards made per week,.....	yds., 2,481,000 cotton. “ 82,000 woollen. “ 25,000 carpets.
Cotton consumed per week, pounds,.....	lbs., 823,000
Clean wool consumed per week, pounds,.....	“ 75,000
Yards, dyed and printed,.....	yds., 15,586,000
Tons anthracite coal, per annum,.....	tons, 30,400
Charcoal, bushels, per annum,.....	bush., 26,850
Wood, per annum, cords,.....	cords, 1,720
Oil, per annum, gallons,.....	galls., 55,682 oil. “ 20,000 lard.
Starch, pounds, per annum,.....	lbs., 1,631,000
Flour, barrels, per annum,.....	bbls., 1,485

PRODUCTS OF THE MICHIGAN COPPER MINES.

The following is an approximate estimate of the product of native copper from the opening of the Lake Superior mines, in 1845 to 1860, inclusively, in tons of 2,000 lbs.:

PRODUCE FROM 1845 TO 1857, INCLUSIVELY.

			<i>Rough.</i>		<i>Refined.</i>
Shipped in 1858,.....	5,896 tons.	....	24,475	....	18,945
Less, included in above item,	888 “	....	“	....	“
		....	5,008	....	3,500
Shipped in 1859,.....		....	6,058	....	4,200
“ 1860,.....		....	8,614	....	6,000
			44,155	....	32,654

The principal copper mines of Cornwall and Devon are comprised within a zone of a mile and a half in width, and thirty-three miles in length. The product of that district in 1860 was 13,212 tons, 1,507 tons less than in 1856. This result has been obtained after workings of 250 years.

The Lake Superior metalliferous belt extends within the limits of Michigan alone, as measured on the range, 160 miles, and averaging five miles in breadth.

The present and perhaps prospective low price of copper will prove no serious detriment to the mining interests. On the contrary, the lessening of the cost of production will be hastened. The success of some of the leading mines has led to some extravagance of management. The isolation of the country has rendered it difficult to get a resident mining population. The peculiarity of the deposits of mineral wealth, and the want of economical machinery for reducing the stamp work to marketable shape, have been especial hindrances to the accumulation of profits. In some instances there has been an unwise holding back of capital, the shareholders preferring, even after a certainty of success, to defer dividends, by making the product of the mine furnish its own resources. But, in the mean time, there has been developed an energy not less indomitable than has been exhibited in the final successful establishment of many other industrial enterprises. The difficulties of navigation have disappeared since the opening of the St. Mary's ship canal, and of the entry into Portage Lake. The problems of machinery and labor are being rapidly solved. The comforts of a refined civilization are increasing with the extraordinary growth of population, so that with a prospect of 7,500 to 8,000 tons of ingot copper for 1861, even at an average price less than that of 1860, there is much encouragement in the future.—*L. S. Miner.*

FRENCH WINES.

The *Aigle de Toulouse* publishes a decree from the Minister of Finance, extending to all France the permission to mix alcohol with wines intended for exportation. Hitherto only certain departments possessed the privilege, which has been frequently solicited by the Chamber of Commerce of Toulouse and the wine-growers of the Haute Garonne. The decree provides that the addition of the alcohol must always be made in the presence of government officers, who are to take note of the natural strength of the wines and of the quantity of alcohol added.

FLAX COTTON.

The Fibrilia Felting Company, organized under the general laws, have issued their legal notices, from which we condense the following: This corporation is formed to carry on the business of manufacturing flax, hemp, jute, China grass, silk, wool, cotton and like fibrous substances in the various forms of manufacture necessary for yarns, cloth and felt, as well as the bleaching and coloring the same. The capital stock is \$10,000, which has been paid in, and has been expended in the purchase of machinery, patent rights, &c., for carrying on the business. The par value of each share is \$100, and the business is carried on in Winchester, Middlesex county. STEPHEN M. ALLEN is President, GEO. L. FALL is Treasurer; and they, with S. P. WHITE, are the Directors.

NEW MINERAL DISCOVERIES IN CALIFORNIA.

A recent number of the San Francisco *Alta California* furnishes accounts of new and extraordinary rich veins of gold and silver ore that have lately been brought to light in the eastern slope of the Sierra Ne-

vada range. Mines that bid fair to equal, if not surpass, any thing known in the history of California, are now being opened up in Mariposa and Tulare counties, in the southeastern section of the State. In the Coso district, in the eastern portion of Tulare county, the gold and silver ores have assayed at the rate of \$1,500 to \$6,000 per ton, from pieces chipped off from the weather-worn outcroppings with sledge-hammers, crowbars, &c. But as if this were not enough to excite the cupidity of lucre-loving humanity, a startling discovery of gold and silver bearing antimonial ore has recently been made, specimens of which have been assayed at San Francisco, and yield the astonishing amount of more than *sixteen thousand dollars to the ton!* This extraordinary "lead" is in the hands of parties who, naturally enough, do not court publicity in regard to the locality of their splendid prize. Besides these dazzling discoveries, the Mono Lake district, which is located at the junction of Calaveras, Mariposa and Fresno counties, is known to be a prolific field for mining operations, both in silver and gold: while it has been demonstrated that the vast mountains of quartz which comprise the great portion of Mariposa county, known for their prolific gold yield, are even richer in silver. A richer vein of silver has been traced across the northeastern section of Mariposa county, on both sides of the mountain range, which leads to the belief that it is the initiative of a vast bed of silver ore on the west side of the Sierra. In Calaveras county numerous discoveries of extraordinary richness have been made, and it is further stated that discoveries have been made as far east as the Mohave and Colorado rivers, which promise to be of vast importance.

The silver lead in Mariposa county has a somewhat romantic history, as told by the *Alta*: "This silver lead, it is stated, was discovered in 1856, but the discoverer was unaware of its nature until last winter. In his wanderings about Mariposa, where he mined, he at different times prospected, carefully marking the rock he returned with. In 1856, while hunting, he discovered what he thought to be a lead mine. He pocketed the prospect, but thought it of no value in comparison with gold. In 1858 he went east to visit his relatives, taking with him his collection of minerals and gold specimens. Last February he saw a specimen of Washoe ore at W. T. COLEMAN & Co.'s, in Wall-street, and remarking the resemblance to his lead specimen, procured a piece to compare with his own. He was so well satisfied that they were identical in nature that he had each assayed, and his 'lead specimen' proved to be rich silver ore. Keeping his own counsel he returned to California last spring, and has spent the intervening time in retracing his footsteps over the chemical and chaparral hills of Mariposa, and his investigations have resulted in his discovery as above named."

Mining and scientific parties are now engaged in exploring these new mineral regions, and the stream of adventurers is already setting eastward, across the Sierras, from the southern country, and next spring and summer that whole region will be filled up with eager treasure-hunters.

From these new discoveries California derives additional resources and importance. Fresh streams of emigration will pour into the State, and new and increased impetus will be imparted to its industrial and commercial activity, while the commerce of the world will be stimulated by the increased production of the precious metals.

FOREIGN CORRESPONDENCE

OF THE MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW.

LONDON, *July 1st*, 1861.*To the Editors of the Merchants' Magazine :*

I CANNOT, I think, do better than proceed at once to put your readers in possession of an opinion advanced to me the other day by a leading public man, who has been out and in Downing-street for nearly half a century.

He says that, *in any eventuality*, England will not go to war with the Federal government, as war is not desired by any class of politicians nor by the mass of the English people ; secondly, because no present necessity exists for it on the plea of cotton ; and, in the third place, should the war not be ended before the present English stock of cotton fails, it is not improbable that the Federal government, while vigorously carrying on the war with the Confederate States, would permit cotton to be exported from New-Orleans, rather than to provoke war with a foreign power. Such is the view of the American question as taken by one of the foremost men in England ; and when submitted to your readers it will be as fresh and assuring as if submitted to them to-day.

From all that I can see and hear and read, there is but the one conclusion to which I am forced, namely, that the present British government have no American policy whatever, and that the conservative opposition are in precisely the same state. The conservatives will do nothing and say nothing to involve the whigs in war, and were the whigs unhappily to become involved in war, the conservatives would condemn their policy, and do their best to carry an adverse vote against the government. Were the government to be upset on any question, between now and the end of the session, and the conservatives to take office and go to war with the Federal government, I firmly believe that the first act of Lord PALMERSTON's party opposition would be to condemn the war policy of Lord DERBY, and try to regain office on the strength of such opposition. Whig and Tory are conscientiously opposed to engaging in the present struggle ; and, notwithstanding speeches in Parliament and articles in newspapers, you may feel perfectly easy as to the attitude this country will assume, or the course which its statesmen of any party may choose to take. If you can see your way by and by to a regulated cotton trade, through the Upper Mississippi and the New-York railways, if not from New-Orleans, JOHN BULL will be the close and faithful ally of the North, during at least the whole of Mr. LINCOLN's presidential term.

Passing from this unusual but highly important topic, the next important subject is the harvest prospects of the United Kingdom. These were never more satisfactory, and the probability is that a larger quantity

will this year be harvested than was ever known in this country. Last fall, as your readers will remember, was the only good part of the English season; and winter wheat was put into the ground under the best auspices. An unusually severe winter followed, not severe enough to kill the young shoots, but sufficiently so to make them more healthy than was ever known. A genial spring, neither too wet nor too dry, and a warm summer, has since brought them into ear; and a few weeks more of such weather is only wanted to provide abundantly, almost from the home supply alone, enough for man and beast. High prices are not therefore to be looked for here by your New-York receivers or by the Buffalo or Chicago commission houses. With good weather a very low level of prices will be established, and very likely it will be maintained throughout the year. The time was when good spring wheat flour brought no more than \$4 or \$4 50 in Liverpool, and you may now expect that such times are again at hand.

Shipping matters, in which I am glad to find you take great interest, now politically do not engage attention. Since Mr. LINDSAY's return from the United States he has never said in Parliament a word on the subject; and no question has ever been addressed to him or to Mr. MILNER GIBSON as to the mission in which he ambitiously engaged. The fact is, the House of Commons is thoroughly disgusted with the so-called shipping question, it having been kept before the public by a clique of old-fashioned gentlemen, whose opinions on commercial classes generally are obnoxious to the masses. Any little popularity which Mr. LINDSAY has, which, by the way, is not much, has been gained by popular appeals against this clique; and, very oddly as it may appear to you, while Mr. LINDSAY was making his American tour and enlightening the members of the New-York Chamber of Commerce among the rest, an individual formerly attached to the staff of the *Morning Chronicle* sent around circulars to all the members of the House of Commons and the House of Lords, claiming to have written all the speeches which, during the past years, have been delivered by Mr. LINDSAY, and claiming still further to be the author of all Mr. LINDSAY's published works. Whether this painful revelation has kept Mr. LINDSAY from taking a prominent part in the business of the session and shut him up on the subject of his American mission, I cannot say, but it is a fact, that up to this time his mission has not once been named in Parliament. With the vexed question of shipping grievances nothing whatever has yet been done, and the proposition to abolish passing tolls, at once embodied in the Harbors Bill, introduced by Mr. MILNER GIBSON, is not likely to be favorably entertained by the House of Lords, even if it should pass the third reading in the House of Commons. Among those ship-owners who speak out at all, it is said, *why advance another step in the way of the freedom of shipping until the United States and France and other countries make equivalent concessions to those granted to the flags of all nations in the British foreign and coasting and colonial trades?* This sentiment also finds expression to some extent in Parliament, and if not sufficiently strong in the lower house to reject Mr. MILNER GIBSON's bill, it is, as I have just said, all but sure to be found strong enough in that house, in which free trade is still distrusted.

In dealing with financial matters I cannot, perhaps, do better than give you a *résumé* of the weekly features of the month. During the

week ending 1st June, the discount market was moderately easy, the rates in Lombard-street ranging from $5\frac{1}{2}$ to $5\frac{3}{4}$ per cent. for choice bills, or $\frac{1}{2}$ to $\frac{1}{2}$ below the bank minimum. The following were the rates current in the principal continental cities :

<i>Bank rate.</i>		<i>Open market.</i>	<i>Bank rate.</i>		<i>Open market.</i>
Paris, ...	5 per cent. . .	4 $\frac{1}{2}$ per cent.	Frankfort, . . .	3 per cent. . .	2 per cent.
Vienna, ...	5 " " "	6 " "	Brussels, . . .	3 " " "	3 " "
Berlin, ...	4 " " "	3 $\frac{1}{2}$ " "	Turin, ...	6 " " "	5 $\frac{1}{2}$ " "
Amsterdam, 3	" " "	3 " "	Hamburg, . . .	none. . .	2 $\frac{1}{2}$ " "

The monthly Board of Trade returns for April were published in the course of the week, and the official statements of the exports and imports to and from the United States for the first quarter were as follow :

	<i>Exports.</i>		<i>Imports.</i>
1859, ...	£ 6,202,943	....	£ 6,901,609
1860, ...	5,822,109	....	11,084,113
1861, ...	4,026,679	....	13,834,061

The minimum rate of the Bank of England was 6 per cent. ; the rate allowed for deposits by the London joint-stock banks, $4\frac{1}{2}$ per cent. ; the rate allowed by the London discount establishments, $4\frac{1}{2}$ per cent. for money on call, and 5 per cent. at seven days' notice ; Consols, $91\frac{1}{2}$ to 92 ; French 3 per cent. rentes, 69.40 ; Bank of France rate of discount, 5 per cent.

For the week ending 8th June the money market was more stringent. At the Bank of England business was done to a considerable extent at the minimum rate of 6 per cent., and in the open market the same rate was charged for good 60 day bills. Consols and French rentes declined slightly in the week, the closing prices for the former, ex-dividend, being $89\frac{3}{4}$ to $89\frac{1}{2}$ and 89 ; the latter, 67.70 for money and the same for the account. The rates allowed for deposits by the London joint-stock banks was $4\frac{1}{2}$ per cent. ; by the London discount establishments, $4\frac{1}{2}$ per cent. at call, and five per cent. at seven days' notice. The Bank of France rate of discount, 5 per cent.

For the week ending 15th of June there was no perceptible change in either the London or Paris money markets. The monthly return of the Bank of France give the following changes :

Coin and bullion, increase, £800,000 ; bills discounted, decrease, £20,000 ; notes in circulation, decrease, £1,240,000 ; private deposits, increase, £1,240,000 ; treasury deposits, increase, £160,000 ; advances on public securities, decrease, £220,000.

Three per cent. rentes gained $\frac{1}{4}$ per cent. in the week, and closed at 67.90 for money and 67.95 for the account. Consols also gained and closed at 90 to $90\frac{1}{2}$ for money, ex-dividend, and $90\frac{3}{4}$ to $90\frac{1}{2}$ for the account, ex-dividend. The demand for money at the Bank of England was moderate. In Lombard-street the minimum bank rate of 6 per cent. was charged for the best bills ; in the open market the same rate was charged. The London joint-stock banks continue to allow $4\frac{1}{2}$ per cent. for deposits ; the London discount establishments, $4\frac{1}{2}$ per cent. at call, and 5 per cent. at seven days' notice. The Bank of France rate of discount remained at 5 per cent.

For the week ending 22d June three per cents on the Paris Bourse

declined from $\frac{1}{2}$ to $\frac{1}{4}$ per cent. ; Consols were also lower, the quotations of the latter being $89\frac{1}{2}$ to $89\frac{3}{4}$ for money, ex-dividend, and 90 to $90\frac{1}{2}$ for the account, ex-dividend. The minimum rates of the Bank of England and the Bank of France were unchanged, the former standing at 6 per cent. and the latter at 5 per cent. In the open London market good sixty day bills, $5\frac{1}{2}$ to 6 per cent. The London joint-stock bank rates unchanged for deposits.

For the week ending 29th June the rate of discount in the open market at Paris was $4\frac{1}{2}$ per cent. ; at Vienna, 6 ; Hamburg, $2\frac{1}{2}$; Brussels, 4 ; Berlin, $3\frac{1}{2}$; Frankfort, 2 ; Turin, $6\frac{1}{2}$, and Amsterdam, 3 per cent. In Paris the Bank of France rate remained at 5 per cent., and in London, the Bank of England rate at 6 per cent. In the open London market 6 per cent. was charged, and the rates on deposits continued as before.

Attention was directed to the sound state of English railways, which is apparent at a glance of the following table :

In 1851 Caledonians were at.....	20,—now at 97 $\frac{1}{2}$
In 1848 Great Northerns were at.....	40 “ 107 $\frac{1}{2}$
In 1851 Lancashires were at.....	46 “ 111 $\frac{1}{2}$
In 1850 Midlands were at.....	31 “ 121
In 1850 North British were at.....	16 “ 63
In 1854 Berwicks were at.....	61 “ 104 $\frac{1}{2}$
In 1850 Scottish Centrals were at.....	40 “ 114 $\frac{1}{2}$

The Board of Trade returns for May, and for the five months of the year, have been published, and the exports are as follow :

YEAR.	For the month.	For the five months.
1859,.....	£ 10,485,744	£ 52,337,268
1860,.....	10,949,188	52,783,535
1861,.....	11,206,070	49,780,532

The other side of the account the imports foots up a large balance against the United Kingdom :

YEAR.	For the month.	For the five months.
1859,.....	£ 10,109,092	£ 33,407,156
1860,.....	13,679,301	42,410,364
1861,.....	17,509,940	51,821,567

The failures for the month have been numerous. Among the number, Messrs. JAMES DUNCAN & Co., of Dundee, who attribute their failure to the stoppage of the American trade ; Messrs. T. FISH & Co., manufacturers, Manchester ; Messrs. B. WILD & Co., Manchester, in the American trade ; Messrs. CHURCHILL & MACMELLAN, timber brokers, Cannon-street, London ; Messrs. D. & J. THOMSON & Co., jute spinners and manufacturers, Dundee ; Messrs. F. ATKIN & Co., merchants, Manchester.

Trade in the manufacturing districts continues quiet and contracted. So far there is nothing like pressure yet experienced, but the present stock of cotton on hand will not carry the cotton spinners into the next year at the present rate of working up.

Some particulars with regard to the movement of cotton in Liverpool during the last two months will no doubt be acceptable to your readers. At the commencement of April the stock amounted to 942,000 bales, being 36,000 bales more than the quantity held at the corresponding date in 1860 ; but during the last two months it will be seen that this

excess has been more than lost. Last year's deliveries, however, were on a very free scale, the crop of the preceding season having been remarkably abundant:

Stock.	1861. bales.	1860. bales.	Stock.	1861. bales.	1860. bales.
April 26,.....	952,740 ..	1,027,290	May 31,.....	1,151,010 ..	1,295,570
May 3,.....	900,690 ..	1,016,630	June 7,.....	1,148,650 ..	1,358,620
May 10,.....	976,810 ..	1,027,130	June 14,.....	1,131,080 ..	1,335,040
May 17,.....	1,049,590 ..	1,111,260	June 21,.....	1,116,660 ..	1,307,835
May 24,.....	1,111,510 ..	1,200,780			

The proportions in which the stocks were made up, at the first and last dates mentioned, were as follow:

	Stock, April 26. bales.	Stock, June 21. bales.		Stock, April 26. bales.	Stock, June 21. bales.
America,.....	776,260 ..	843,930	Egyptian,.....	42,970 ..	48,240
Pernambuco,.....	8,569 ..	8,430	Common West India,	2,540 ..	1,630
Bahia,.....	70 ..	3,540	Surat,.....	115,620 ..	193,030
Maranham,.....	6,790 ..	8,070			

It will be observed, that, notwithstanding the prospect of diminished American supplies, the stock of Surat is accumulating; in fact, it is only kept down by reshipments to Russia, Germany and Sweden.

London, on Saturday evening, the 22d June, was visited by one of the most terrific conflagrations that probably had occurred since the great fire in 1666; certainly, for the amount of property destroyed, nothing like it has been experienced the last half-century, the loss being estimated at three millions or more.

This catastrophe occurred on the waterside portion of Tooley-street, nearest London Bridge. The outbreak took place at the extensive range of premises known as Corron's Wharf, and bounded by warehouses belonging to Messrs. SCOVELL. They had an extensive river frontage, and the whole space on the land side, extending to Tooley-street, was covered with eight or nine massive brick warehouses, six stories in height, the whole occupying an immense area. These buildings were filled with merchandise of every description. There were some thousands of chests of tea and silk stored in the upper floors, while in the lower ones there was an immense stock of Russian tallow, various oils, bales of cotton, hops and grain. Every portion of the entire establishment might be said to have been loaded with goods; and of the whole of this very valuable property, said to be valued at upwards of a million, not a vestige remains but the bare walls and an immense chasm of fire, which, at dusk on Sunday evening, lighted up the Pool and the east end of the city.

From London Bridge there is now very little to be seen beyond heaps of blackened wreck and skeleton walls. The vaults and mounds of ruin over the whole surface of the wide area of destruction are fast cooling down. A fresh outbreak, which took place in a vault on HAY's Wharf, was speedily got under. A quantity of hides has been recovered from among the wreck on HAY's Wharf, and on CHAMBERLAIN's Wharf great progress was made towards the recovery of 150 tons of spelter, which has received little or no injury.

The destruction of property and goods proves to be more enormous

than was previously calculated upon ; and, by practical men of business, and also by competent judges, the loss is not put down under £4,000,000 sterling. This serious amount will fall principally on four of the London insurance companies. The insurance companies, it is understood, are about to raise the rates of insurance on fire policies, and have already done so in some instances, by 50 per cent.

Great efforts are making to enlarge the steam commerce between England and America. On the afternoon of the 25th June, the steamship *SCOTIA*, the second iron paddle-wheel liner built by the orders of Messrs. BURNS for the CUNARD or British and North American Royal Mail Steam Packet Company, was launched from the building-yard of Messrs. ROBERT NAPIER & SONS, at Govan, near Glasgow. The weather was rather unfavorable, yet an immense concourse of spectators assembled to witness the event. The *SCOTIA*, which is somewhat larger than the *PERSIA*, is the second vessel in point of magnitude and capacity that has hitherto been constructed for mercantile service. From the adaptation by the builders of every improvement and scientific auxiliary, the *SCOTIA* is expected to attain a very high degree of speed, and no doubt is felt that she will, in ordinary circumstances, perform the voyage between New-York and Liverpool in nine days.

Excepting the *GREAT EASTERN*, the *SCOTIA* is the largest mercantile steamship afloat in the world, far exceeding in length, strength, tonnage and steam-power the other vessels of the line, and exceeding by 760 tons the tonnage of the *PERSIA*, and by 1,900 tons the internal capacity of any other of the present splendid CUNARD liners. Her chief proportions may be summed up as follows :

Length of keel and forerake, ...	360 feet.
Length over all, ...	400 "
Breadth of mould, ...	47 "
Depth, ...	32 "

The report of the joint committee of the Board of Trade to inquire into the best form of covering for submarine telegraph cables has just been issued. Up to the present time 11,364 miles have been laid, but only about 3,000 are actually working. The lines not working include the Atlantic, 2,200 miles, the Red Sea and India, 3,499 miles, the Sardinia, Malta and Corfu, 700 miles, and the Singapore and Batavia, 550 miles. The committee give a succinct history of these, as well as of all the others, and state their conclusions. The failure of the Atlantic is attributed to "the cable having been faulty, owing to the absence of experimental data, to the manufacture having been conducted without proper supervision, and to the cable not having been handled after manufacture with sufficient care;" and they add that "practical men ought to have known that the cable was defective, and to have been aware of the locality of the defects before it was laid." The committee recommend the construction of a vessel specially for the purpose, which they believe, when not employed in laying cables, would be found extremely useful for the ordinary purposes of commerce. In conclusion, they repeat their belief that the exercise of due care might have prevented all the unsatisfactory results that have thus far attended this branch of enterprise.

The Social Science Association.—The following appointments of president of the association and presidents of sections for the Dublin meeting

have been made by the London council : Lord BROUGHAM will be president of the association, and will deliver the inaugural address. The presidents of sections will be—Jurisprudence, Right Hon. JOSEPH NAPIER ; Education, Sir JOHN S. LEFEVRE, K. C. B. ; Punishment and Reformatories, the Right Hon. the Attorney-General ; Public Health, the Right Hon. Lord TALBOT DE MALAHIDE ; Trade and International Law, M. MICHEL CHEVALIER, the celebrated French economist. The time of the meeting has been fixed to be from the 14th to the 21st of August.

COMMERCIAL CHRONICLE AND REVIEW.

MEETING OF CONGRESS—FISCAL YEAR ENDED—FOREIGN IMPORTS AT NEW-YORK, JUNE, 1861—SAME, YEARS 1857-1861—HEAVY EXPORTS OF PRODUCE TO EUROPE—FOREIGN TRADE OF NEW-YORK, 1851-1861—EXPORT OF GRAIN, 1861—ESTIMATES OF REVENUE BY THE SECRETARY OF THE TREASURY—IMPORTS OF DRY GOODS AT NEW-YORK—FOREIGN AND DOMESTIC EXCHANGES—RAILROAD DIVIDENDS.

CONGRESS met on the fourth day of July. The message of the President was communicated on the following day. The report of the Secretary of the Treasury recommends numerous changes in the tariff.

The fiscal year of the federal government closed on the 30th of June, and the result is a larger business than was ever before transacted in one year. For four years the aggregates have been as follows :

	1858.	1859.	1860.	1861.
Exports,.....	\$ 100,667,890 ..	\$ 106,443,541 ..	\$ 138,036,550 ..	\$ 150,386,522
Imports,.....	171,473,336 ..	220,247,307 ..	233,718,718 ..	224,401,260
Total,.....	\$ 272,141,226 ..	\$ 326,690,848 ..	\$ 371,755,268 ..	\$ 374,787,782
Duties,.....	27,435,000 ..	34,910,000 ..	37,662,000 ..	28,223,137

The month of June shows a very moderate amount in foreign goods imported ; being only \$7,262,580, against a monthly average of about sixteen millions for the whole fiscal year ending June 30, 1861 ; and against \$19,122,517 for the month of June, 1860, and \$23,583,929 for June, 1859.

FOREIGN IMPORTS AT NEW-YORK FOR THE MONTH OF JUNE, 1861.

ENTERED.	1858.	1859.	1860.	1861.
For consumption,....	\$ 6,652,563 ..	\$ 14,909,315 ..	\$ 11,870,400 ..	\$ 1,825,563
For warehousing,....	2,408,733 ..	5,494,253 ..	2,765,008 ..	3,245,504
Free goods,.....	953,014 ..	3,180,361 ..	4,487,109 ..	2,191,513
Specie and bullion,..	102,132 ..	485,891 ..	38,272 ..	5,387,153
	\$ 10,116,442 ..	\$ 24,069,821 ..	\$ 19,160,789 ..	\$ 12,649,733

For the past six months the contrast is also remarkable, presenting features not before existing, except in the revulsion of 1857-8 ; the aggregate imports (exclusive of specie) for the half year being only \$77,949,208, against \$117,031,239 for the corresponding period of 1860 ; and \$128,038,931 in 1859 ; \$60,006,271 in 1858, and \$115,577,415 in

the inflated year of 1857. These contrasts are more fully represented in the following table:

FOREIGN IMPORTS AT NEW-YORK FOR SIX MONTHS, FROM JANUARY 1ST.				
ENTERED.	1858.	1859.	1860.	1861.
For consumption,..	\$36,320,520 ..	\$91,829,562 ..	\$79,945,689 ..	\$31,991,257
For warehousing, ..	12,236,258 ..	19,266,384 ..	20,914,902 ..	28,672,040
Free goods,.....	11,449,498 ..	16,942,984 ..	16,170,648 ..	17,285,911
Specie and bullion,	1,778,363 ..	1,125,943 ..	686,837 ..	25,909,668
Total entered,..	\$61,784,634 ..	\$129,164,874 ..	\$117,718,076 ..	\$103,858,876
Withdrawn,....	21,911,964 ..	11,515,721 ..	10,315,657 ..	19,374,096

From the above it will be seen that only \$51,165,353 of dutiable goods have been thrown upon the market here since January 1st, against \$94,261,346 for the same period of last year, and \$103,345,284 for the same period of 1859; and the ratio is rapidly diminishing, month by month. We have compiled our usual statement, showing the imports at this port during the last fiscal year, as compared with the three previous years, showing the gross imports of goods and merchandise to have been only one hundred and ninety millions in value, or forty millions less than the year 1859-1860:

FOREIGN IMPORTS AT NEW-YORK FOR FOUR FISCAL YEARS, ENDING JUNE 30.				
ENTERED.	1858.	1859.	1860.	1861.
For consumption,..	\$94,019,659 ..	\$158,451,780 ..	\$164,881,435 ..	\$106,706,066
For warehousing, ..	44,463,806 ..	32,665,650 ..	38,523,572 ..	54,498,323
Free goods,.....	23,665,487 ..	27,518,177 ..	27,936,396 ..	29,121,710
Specie and bullion,	9,324,384 ..	1,611,700 ..	2,377,315 ..	34,075,161
Total entered,..	\$171,473,336 ..	\$220,247,307 ..	\$233,718,718 ..	\$224,401,260
Withdrawn,....	49,376,593 ..	27,103,299 ..	29,657,025 ..	36,162,363

If we separate the aggregate dry goods imports from the general merchandise, we find that the decrease in the importations is in dry goods and in general merchandise:

DESCRIPTION OF IMPORTS FOR THE YEAR ENDING JUNE 30.				
	1858.	1859.	1860.	1861.
Dry goods,.....	\$67,317,736 ..	\$93,549,083 ..	\$107,843,205 ..	\$83,310,345
Gen'l merchandise,	94,831,216 ..	125,086,524 ..	123,498,198 ..	107,015,754
Specie and bullion,	9,324,384 ..	1,611,700 ..	2,377,315 ..	34,075,161
Total imports,..	\$171,473,336 ..	\$220,247,307 ..	\$233,718,718 ..	\$224,401,360

The exports of produce and merchandise at this port during the month of June were nearly twelve millions, a larger amount than was ever before shipped from New-York to foreign ports in a single month. During the corresponding month of last year the exports were also unusually large, both in produce and specie; but, compared with any other previous year, the gain is enormous, and it exceeds that of June in the last year, exclusive of specie, by nearly two millions:

FOREIGN EXPORTS FROM NEW-YORK FOR THE MONTH OF JUNE, 1858-1861.				
	1858.	1859.	1860.	1861.
Domestic produce,.....	\$6,382,939 ..	\$4,880,395 ..	\$8,307,774 ..	\$10,270,430
Foreign merch., (free),..	158,769 ..	126,255 ..	200,464 ..	648,482
For'gn merch., (dutiable,)	350,990 ..	187,522 ..	486,228 ..	903,877
Specie and bullion,.....	594,174 ..	7,496,981 ..	8,842,080 ..	244,242
Total exports,.....	\$7,486,872 ..	\$12,691,153 ..	\$17,836,546 ..	\$12,067,031
Total, exclusive specie,	6,882,689 ..	5,194,172 ..	8,994,466 ..	11,822,789

The total exports from New-York to foreign ports, exclusive of specie, since January 1st, are larger than for the first six months of any previous year. On the other hand, the exports of specie are less than for the same period for many years :

EXPORTS FROM NEW-YORK TO FOREIGN PORTS FOR SIX MONTHS, FROM JANUARY 1.

	1858.	1859.	1860.	1861.
Domestic produce,.....	\$28,580,392 ..	\$28,435,582 ..	\$38,775,862 ..	\$61,477,439
Foreign merch., (free),...	782,561 ..	1,384,318 ..	1,719,475 ..	1,685,329
For'gn merch., (dutiable)	2,280,425 ..	1,789,363 ..	3,092,509 ..	3,438,463
Specie and bullion,.....	12,359,959 ..	33,197,972 ..	21,579,752 ..	3,249,438
Total exports,.....	\$44,003,337 ..	\$64,807,235 ..	\$65,147,598 ..	\$69,850,669
Total, exclusive specie,	31,643,378 ..	31,609,263 ..	43,567,846 ..	66,601,231

It will be seen that the total, exclusive of specie, even compared with the very large figures for the corresponding period of last year, shows an increase of over fifty per cent., and, as compared with the previous year, the gain is over one hundred per cent. We now produce our comparative tables for the whole year, from which it will be seen that the largest previous exports of produce and merchandise were for the year ending June 30th, 1857, when the total was about eighty-two millions; it will be seen, therefore, that the total for the twelve months just ended was forty-five millions larger than for any former year in the history of the trade. In consequence of the disturbed condition of the South and West, a large amount of produce will be diverted from other channels to this port, but the natural outgoes to foreign ports can hardly be as large during the next twelve months as they have been in the year just closed. Even if the same quantity were to be shipped, the total value must be greatly diminished by the falling off in price. The business of the coming year depends largely upon the results of the English harvest.

IMPORTS OF FOREIGN DRY GOODS AT NEW-YORK FOR THE FISCAL YEAR ENDING JUNE 30.

Entered for Consumption.

MANUFACTURES OF	1858.	1859.	1860.	1861.
Wool,.....	\$17,035,032 ..	\$28,275,434 ..	\$31,437,083 ..	\$21,311,212
Cotton,.....	9,012,911 ..	19,003,825 ..	18,339,131 ..	7,613,005
Silk,.....	17,581,099 ..	26,740,909 ..	33,683,706 ..	22,080,682
Flax,.....	3,701,555 ..	8,583,246 ..	8,548,281 ..	3,944,214
Miscellaneous,.....	3,761,788 ..	4,890,755 ..	5,469,601 ..	4,806,586
Total,.....	\$51,092,385 ..	\$87,494,169 ..	\$97,477,801 ..	\$59,755,699

Withdrawn from Warehouse.

MANUFACTURES OF	1858.	1859.	1860.	1861.
Wool,.....	\$6,369,118 ..	\$3,245,046 ..	\$3,388,431 ..	\$5,589,542
Cotton,.....	4,018,693 ..	1,750,716 ..	2,466,919 ..	3,968,671
Silk,.....	5,394,970 ..	1,308,739 ..	1,396,011 ..	3,841,430
Flax,.....	2,215,427 ..	1,292,722 ..	911,214 ..	1,581,324
Miscellaneous,.....	1,385,173 ..	789,773 ..	635,293 ..	808,507
Total,.....	\$19,383,381 ..	\$8,387,046 ..	\$8,497,868 ..	\$15,789,474
For consumption,...	51,092,385 ..	87,494,169 ..	97,477,801 ..	59,755,699
Total on market,...	\$70,475,766 ..	\$95,881,215 ..	\$105,975,669 ..	\$75,545,173

Entered for Warehousing.

MANUFACTURES OF	1858.	1859.	1860.	1861.
Wool, ...	\$ 5,028,533 ..	\$ 2,647,814 ..	\$ 3,981,742 ..	\$ 7,376,464
Cotton, ...	4,048,530 ..	1,416,143 ..	2,929,175 ..	6,444,186
Silk, ...	3,667,521 ..	776,862 ..	1,778,646 ..	5,746,806
Flax, ...	1,964,891 ..	719,606 ..	904,693 ..	2,679,161
Miscellaneous, ...	1,515,876 ..	494,489 ..	771,147 ..	1,308,079
Total, ...	\$ 16,225,351 ..	\$ 6,054,914 ..	\$ 10,365,404 ..	\$ 23,554,646
For consumption, ...	51,092,385 ..	87,494,169 ..	97,477,801 ..	59,755,999
Entered at the port, ..	\$ 67,317,736 ..	\$ 93,549,083 ..	\$ 107,843,205 ..	\$ 83,310,345

In order to distinguish the dry goods from the general imports, we have compiled a table which gives at a single glance the whole imports of dry goods for the year, compared with the preceding three years :

IMPORTS OF DRY GOODS AT NEW-YORK FOR THE YEAR ENDING JUNE 30.

MANUFACTURES OF	1858.	1859.	1860.	1861.
Wool, ...	\$ 22,063,665 ..	\$ 30,923,248 ..	\$ 35,418,825 ..	\$ 28,687,676
Cotton, ...	13,061,441 ..	20,419,968 ..	21,268,306 ..	14,057,141
Silk, ...	21,248,620 ..	27,517,771 ..	35,462,352 ..	27,827,488
Flax, ...	5,666,446 ..	9,302,852 ..	9,452,974 ..	6,623,375
Miscellaneous, ...	5,277,664 ..	5,385,244 ..	6,240,748 ..	6,114,665
Total imports, ...	\$ 67,317,736 ..	\$ 93,549,083 ..	\$ 107,343,205 ..	\$ 83,310,345

The total cash duties received at New-York for the past five fiscal years have been \$170,540,990, an average of about thirty-four millions of dollars, viz. :

1856-7, ...	\$ 42,271,645
1857-8, ...	27,434,667
1858-9, ...	34,999,800
1859-60, ...	37,711,740
1860-61, ...	28,223,137

In order to illustrate the commerce of the State for ten years, we re-publish the tabular returns of domestic and foreign produce exported, the imports, and the increase of tonnage for each year, 1850—1860 :

FOREIGN COMMERCE OF THE STATE OF NEW-YORK, FROM JULY 1, 1850, TO JULY 1, 1860.

YEARS.	EXPORTS.			IMPORTS.	TONNAGE CLEARED.	
	Domestic.	Foreign.	Total.	Total.	American.	Foreign.
1851,.....	\$ 68,104,542 ..	\$ 17,902,477 ..	\$ 85,007,019 ..	\$ 141,546,588 ..	\$ 1,588,818 ..	\$ 878,819
1852,.....	74,042,581 ..	18,441,875 ..	87,484,456 ..	182,329,306 ..	1,570,997 ..	906,798
1853,.....	66,080,355 ..	12,175,985 ..	78,306,390 ..	178,270,999 ..	1,959,909 ..	1,064,742
1854,.....	105,551,740 ..	16,982,906 ..	122,534,646 ..	195,427,938 ..	1,918,817 ..	1,085,154
1855,.....	96,414,808 ..	17,816,430 ..	118,731,238 ..	164,776,511 ..	1,861,689 ..	1,140,197
1856,.....	109,848,509 ..	9,262,991 ..	119,111,500 ..	210,162,454 ..	2,186,677 ..	1,885,577
1857,.....	119,197,801 ..	15,605,997 ..	184,808,298 ..	236,493,435 ..	2,188,670 ..	1,405,211
1858,.....	89,039,790 ..	19,801,134 ..	108,840,924 ..	178,475,736 ..	2,152,585 ..	1,132,563
1859,.....	104,726,546 ..	12,818,279 ..	117,589,825 ..	229,181,849 ..	2,554,184 ..	1,976,706
1860,.....	196,060,967 ..	19,494,482 ..	145,555,449 ..	243,489,877 ..	3,838,585 ..	1,190,750
Total.....	\$ 950,017,189	\$ 154,297,506	\$ 1,118,314,645	\$ 1,915,154,188	\$ 21,815,192	\$ 11,436,517

RECAPITULATION OF FOREIGN COMMERCE OF NEW-YORK AND THE UNITED STATES
FOR FIVE YEARS, AND THE PER CENTAGE OF NEW-YORK TO THE WHOLE.

YEAR.	Imports State N. Y.	Other States.	Total U. S.	Per Cent.
1855—1856,.....	\$ 210,160,454 ..	\$ 104,479,468 ..	\$ 314,639,922 ..	66.79
1856—1857,.....	286,493,485 ..	124,896,656 ..	860,890,141 ..	65.53
1857—1858,.....	178,475,736 ..	104,187,414 ..	292,613,150 ..	68.15
1858—1859,.....	229,181,849 ..	109,586,781 ..	388,768,180 ..	67.65
1859—1860,.....	248,489,877 ..	118,676,377 ..	862,166,254 ..	68.61
Five years,.....	\$ 1,102,800,901 ..	\$ 556,276,696 ..	\$ 1,659,077,597 ..	....
Average, five years,	220,560,180 ..	111,255,889 ..	831,815,519 ..	66.40

YEAR.	Exports State N. Y.	Other States.	Total U. S.	Per Cent.
1855—1856,.....	\$ 119,111,500 ..	\$ 207,853,408 ..	\$ 326,964,908 ..	36.43
1856—1857,.....	184,803,298 ..	228,157,884 ..	362,960,682 ..	37.14
1857—1858,.....	108,340,924 ..	216,808,496 ..	324,644,420 ..	33.37
1858—1859,.....	117,589,825 ..	239,249,637 ..	356,789,462 ..	32.94
1859—1860,.....	145,535,449 ..	254,566,847 ..	400,122,296 ..	36.38
Five years,.....	\$ 625,350,996 ..	\$ 1,246,180,773 ..	\$ 1,771,481,768 ..	....
Average, five years,	125,070,199 ..	249,226,154 ..	384,296,358 ..	35.26

The foreign export of wheat from this port to Great Britain, since 1st September last, has been over seventeen millions bushels. We extract the following from EDWARD BILL's flour and grain circular:

FROM—	Bbls. Flour.	Bbls. Corn Meal.	Bush. Wheat.	Bush. Corn.
New-York, to July 12,....	1,547,657 ..	2,815 ..	17,825,883 ..	6,326,927
New-Orleans, to June 14,....	179,427 ..	996 ..	66,767 ..	1,464,267
Philadelphia, to July 4,....	173,894 ..	....	1,433,803 ..	695,628
Baltimore, to July 4,....	127,031 ..	48 ..	947,346 ..	853,200
Boston, to July 5,....	96,081 ..	106 ..	13,032 ..	14,100
Other ports, to June 28,....	128,470 ..	....	2,236,192 ..	15,451
Total since 1st Sept., 1860,...	2,252,560 ..	3,965 ..	22,523,023 ..	9,369,573
Same period, 1860,.....	443,245 ..	651 ..	2,383,369 ..	2,063,592
“ 1859,.....	91,230 ..	58 ..	415,800 ..	342,013
“ 1858,.....	1,163,148 ..	143 ..	5,847,159 ..	3,274,676

TO THE CONTINENT FROM—	Bbls. Flour.	Bush. Wheat.	Bush. Corn.	Bush. Rye.
New-York, to July 2, 1861,...	54,276 ..	1,760,489 ..	41,023 ..	124,116
Other ports, to latest dates,...	7,796 ..	9,073 ..	3,042 ..	....

Freights to English ports have checked the export demand, viz.: To Liverpool, 2s. 10½d. @ 3s. per bbl. on flour, and 9 @ 10½d. per bush. on grain; to London, 3s. 6d. on flour, and 10½ @ 11½d. on wheat; to Glasgow, 3s. 3d. on flour, and 10½d. on wheat; to France, 18c. on wheat.

EXPORTS FROM NEW-YORK TO FOREIGN PORTS FOR THE FISCAL YEARS ENDING JUNE 30.

	1858.	1859.	1860.	1861.
Domestic produce,....	\$ 55,931,987 ..	\$ 53,894,893 ..	\$ 70,249,811 ..	\$ 118,189,900
Foreign merch., (free,) ..	3,104,160 ..	2,202,868 ..	3,335,038 ..	6,111,200
“ (dutiable), ..	7,309,672 ..	3,596,336 ..	6,354,053 ..	2,224,600
Specie and bullion,....	34,322,071 ..	46,839,444 ..	58,097,646 ..	23,860,800
Total exports,.....	\$ 100,667,890 ..	\$ 106,443,541 ..	\$ 138,036,550 ..	\$ 150,386,500
“ exclusive of specie, ..	66,345,819 ..	59,604,097 ..	79,938,904 ..	126,525,700

The message of Secretary CHASE to Congress contemplates an aggregate expenditure by the general government of \$320,000,000 for the year. Of this sum, it is proposed to raise \$80,000,000 by the tariff and the ordinary receipts of the Treasury, and \$220,000,000 by loans and treasury notes.

I. Three year treasury notes or exchequer bills, bearing 7.30 per cent. interest, for the convenience of calculation, or two cents per day for each hundred dollars, or twenty cents per day for each thousand dollars; this interest payable semi-annually. It is thought that this mode of loan may become a popular measure, by distributing it in small sums among the people, to the extent of one hundred millions of dollars.

II. A thirty year funded stock, inscribed or coupon bonds, bearing seven per cent. interest, in sums of \$500, \$1,000 and \$5,000, not to exceed one hundred millions of dollars, including sterling bonds in sums of £100, £500 and £1,000.

III. Treasury notes to the extent of twenty millions of dollars, in sums of ten and fifty dollars, for general circulation.

The Secretary proposed to Congress that a duty of $2\frac{1}{2}$ cents per pound be laid on brown sugar, of 3 cents per pound on clayed sugar, of 4 cents per pound on loaf and other refined sugars, of $2\frac{1}{2}$ cents per pound on the syrup of sugar cane; of 6 cents per pound on candy; of 6 cents per gallon on molasses, and of four cents per gallon on sour molasses; and it is also proposed that a duty of 5 cents per pound be imposed on coffee; 15 cents per pound on black tea, and 20 cents per pound on green tea. From these duties it is estimated that an additional revenue of not less than \$20,000,000 annually may be raised, while the burden of this revenue upon our own people will be to some considerable degree mitigated by participation on the part of the foreign producers.

IV. Treasury notes, of \$10 and \$20, payable one year from date, bearing an interest of 3.65 per cent., or one cent per day per hundred dollars, convertible into treasury notes or exchequer bills, bearing 7.30 per cent. or on demand in coin. The aggregate not to exceed \$50,000,000.

The dividends on rail-road shares, payable in July at Boston, were \$1,150,156, viz.:

STOCKS. RAIL-ROAD COMPANIES.	Capital.	DIVIDENDS.		Amount July, 1861.
		Jan., 1861.	July, 1861.	
Berkshire Rail-Road,.....	\$ 320,500 ..	1 $\frac{1}{2}$..	1 $\frac{1}{2}$..	\$ 5,609
Boston and Lowell,.....	1,830,000 ..	4 ..	3 ..	54,900
Boston and Maine,.....	4,155,700 ..	4 ..	3 $\frac{1}{2}$..	145,450
Boston and Providence,.....	3,160,000 ..	4 ..	4 ..	126,400
Boston and Worcester,.....	4,500,000 ..	4 ..	4 ..	180,000
Fitchburg,.....	3,540,000 ..	3 ..	3 ..	106,200
Eastern,.....	2,853,400 ..	2 ..	2 ..	57,068
Eastern, in New-Hampshire,...	492,500 ..	2 ..	2 ..	9,850
Metropolitan, (horse),.....	600,000 ..	5 ..	3 ..	18,000
Middlesex, (horse),.....	348,000 ..	4 ..	4 ..	13,920
New-Bedford and Taunton,...	500,000 ..	3 ..	3 ..	15,000
Old Colony and Fall River,...	3,015,100 ..	3 ..	3 ..	90,453
Pittsfield and North Adams,...	450,000 ..	3 ..	3 ..	13,500
Providence and Worcester,...	1,600,000 ..	4 ..	4 ..	64,000
Stoughton Branch,.....	84,500 ..	4 ..	3 ..	2,562
Taunton Branch,.....	250,000 ..	4 ..	4 ..	10,000
Waltham and Watertown,....	20,000 ..	4 ..	4 ..	800
Western,.....	5,150,000 ..	4 ..	4 ..	206,000
Worcester and Nashua,.....	15,222 shares,	\$2 $\frac{1}{2}$..	\$2 ..	30,444
Total at Boston,.....				\$ 1,150,156

The following is a recapitulation of rail-road and other dividends payable at Boston in July :

Miscellaneous,.....	\$ 217,191 ..	Manufacturing dividends, ..	\$ 545,900
Interest on bonds,.....	439,984 ..	Rail-road dividends,.....	1,150,156
Total for July, 1861,.....	\$ 2,353,231 ..	Total for January, 1860, ..	\$ 2,992,891
do. Jan., 1861,.....	3,049,710 ..	do. July, 1859, ..	2,270,736
do. July, 1860,.....	3,088,759 ..	do. January, 1859, ..	2,435,342

The Bank of Commerce received instructions in June to pay, when due, the July coupons on the three millions Missouri State bonds issued to the Hannibal and St. Joseph Rail-Road Company. These bonds were issued under stringent restrictions, and, in case of default on the part of the company, the State authorities have the right to foreclose the road, they being a first mortgage on the entire line. The first mortgages of the Hannibal and St. Joseph Rail-Road Company are a lien, simply, on a million of acres of land. The company have also an issue of second mortgage bonds which is a second lien on the line.

The Secretary of the Treasury, in his communication to Congress, under date July, 1861, examines closely the sources of revenue for the coming year. His estimates are as follow for increased duties on sugar, molasses, tea and coffee :

	<i>Estimated Consumption, 1860.</i>	<i>Duty.</i>
2½ cents on foreign sugar,.....	300,000 tons, ..	\$ 16,800,000
6 cents per gallon on molasses,.....	28,000,000 gallons, ..	1,680,000
15 cents per lb. on black tea,.....	13,800,000 lbs. ..	2,070,000
20 cents per lb. on green tea,.....	16,300,000 lbs. ..	3,260,000
5 cents per lb. on coffee,.....	180,000,000 lbs. ..	9,000,000

Total on sugar, tea and coffee,..... \$ 32,810,000

Allow for the large stock on hand, on which no duty will be realized, and for diminished consumption owing to the increased duty and the troubles at the South, the revenue this year may be estimated, as Secretary CHASE states, at twenty millions of dollars.

The duties above stated are	\$ 32,810,000
Direct tax, about	21,000,000
Real property,.....	\$ 11,272,053,881
Personal property,.....	4,830,880,235

Total United States,..... \$ 16,102,934,116

Omitting the seceding States, the amount is as follows :

Real property,.....	\$ 7,630,530,603
Personal property,.....	3,270,227,404

Total,..... \$10,900,758,007

The direct tax on these amounts would be as follows :

One-eighth of one per cent. on \$16,102,934,116,.....	\$ 20,128,667
Or, one-fifth of one per cent. on \$10,900,758,007, property in the non-seceding States,.....	21,800,056
Or, 30-100 of one per cent. on \$7,630,530,603, real property only,...	22,891,590

In other words, the tax of 12½ cents per hundred dollars on the whole real and personal estate of the country would be \$20,128,000. Or, twenty cents per hundred dollars on the gross value, excluding the seceding States, would be \$21,800,000. Or, thirty cents per hundred dollars on the real property alone, \$22,891,000.

One of the three bases will probably be adopted, whereby a revenue exceeding twenty millions may be realized. There is no reason, however, why the South should be exempt. The Southern States must contribute, first or last, their due proportion of the direct tax.

The public debt on the 1st of July, 1861, was \$90,867,828, or less than three dollars per *capita* of the whole population of the United States.

The Sugar Trade.—The Secretary of the Treasury proposes a duty of 2½ cents per pound on brown sugar; 3 cents on clayed sugar; 4 cents on loaf and refined; 2½ cents on syrup; 6 cents on candy, and 6 cents per gallon on molasses. The stock of sugar on hand on 1st July, 1861, was larger than for some years:

STOCK OF SUGAR AT THE FOUR PRINCIPAL PORTS.

Stock in	Hhds.		Melado, Hhds, 1,400 lbs.	Boxes, of 450 lbs.	Bags, as per Spe- cifications.	Java, Boxes, of 600 lbs.
	Foreign, of 1,400 lbs.	Domestic, of 1,100 lbs.				
New-York,....	71,346 ..	4,052 ..	7,428 ..	25,025 ..	190,290 ..	190
Boston,.....	8,596 ..	.....	166 ..	9,328 ..	144,033 ..	4,315
Philadelphia, ..	9,943 ..	261 ..	.....	4,181 ..	8,980 ..	.....
Baltimore,....	3,398 ..	1,051 ..	40 ..	2,379 ..	45,888 ..	.....
Total, July 1st,	93,283 ..	5,364 ..	7,632 ..	40,913 ..	389,191 ..	4,505

The stock of sugar on hand July 1st, 1861, compared with previous years, was as follows:

	TOTAL TONS.			
	1861.	1860.	1859.	1858.
New-York, ...	64,390 ..	62,917 ..	59,865 ..	29,237
Boston,.....	13,613 ..	9,865 ..	9,239 ..	5,995
Philadelphia,.....	7,784 ..	4,965 ..	7,936 ..	1,698
Baltimore,.....	5,353 ..	5,922 ..	6,618 ..	2,714
	91,140 ..	33,169 ..	83,658 ..	39,644

The imports of foreign and domestic sugars for four years, January to June, (six months,) were as follow:

Months.	TOTAL OF THE FOUR PORTS.			
	1861.	1860.	1859.	1858.
January,.....tons,	9,877 ..	8,833 ..	13,141 ..	11,703
February,.....	20,174 ..	18,497 ..	20,247 ..	18,498
March,.....	41,433 ..	31,167 ..	38,277 ..	32,894
April,.....	39,457 ..	47,727 ..	48,632 ..	37,239
May,.....	55,652 ..	52,031 ..	42,961 ..	36,038
June,.....	28,922 ..	45,661 ..	43,409 ..	36,661
Total in six months,.....	195,515 ..	203,916 ..	206,667 ..	173,033
July,.....tons,	.....	52,262 ..	32,646 ..	29,859
August,.....	.....	40,232 ..	18,820 ..	32,545
September,.....	.....	27,915 ..	9,642 ..	15,711
October,.....	.....	19,149 ..	7,836 ..	10,908
November,.....	.....	12,110 ..	8,076 ..	8,011
December,.....	.....	8,879 ..	11,742 ..	11,802
Total in twelve months, ..	.....	364,463 ..	295,429 ..	281,064

Congress, on the 17th July, passed an act authorizing the Secretary of the Treasury to raise \$250,000,000, by loans and Treasury notes, for war expenses. Two tariff bills are now under consideration in Congress as we go to press with the concluding portions of this No. The results we will publish in our September No.

THE BOOK TRADE.

1. *The Works of Francis Bacon*, Baron of Verulam, Lord High Chancellor, &c. Collected and edited by JAMES SPEDDING, M. A. 12mo., Vol. vi. Boston: BROWN & TAGGARD.

The present volume of the Complete Works of FRANCIS BACON, while it forms the sixth volume in the order of publication, is the first volume of the entire series and also the first volume of the Philosophical Works. The remaining volumes will be published in regular order from volume one to ten, inclusive. In the first volume issued (volume xi.) was given a portrait of FRANCIS BACON, when a youth. The present volume, as the first of the series, properly contains his portrait at that period of life when these works were chiefly composed. The list of subscribers numbers nearly one thousand.

2. *The North American Review*. July, 1861. Boston: CROSBY, NICHOLS, LEE & Co.

The July number of the North American is just out. The following is the table of contents:—The Public Lands of the United States; Mrs. JANE TURRELL; The Venerable BEDE; BOUVIER'S Law Dictionary and Institute; Life of Major ANDRE; French Critics and Criticisms; M. TAINE; Burial; The Attic Bee; FRANCIS BACON; Michigan; New Books on Medicine; The Right of Secession; HUGH LATIMER; Critical Notices; New Publications. The original paper on the Right of Secession, which is a review of JEFF. DAVIS' message to the rebel Congress, will be read with much interest.

3. *Cyclopedia of Anecdotes of Literature and the Fine Arts*. By KAYLITT ARVINE. One vol. octavo. Published by GOULD & LINCOLN, Boston.

It is hardly possible to speak too highly of this excellent work. The laborious industry of the author, has brought together an innumerable host of anecdotes from every attainable source. It is a charming volume to read, and after one has read it, invaluable as a book of reference; affording every facility for the latter purpose by its admirable arrangement and copious indexes. We can heartily commend it to all who like to be amused or instructed.

4. The American Tract Society, Boston, have published recently the following volumes:

1. *Life of DANIEL SAFFORD*. 80 cents. 2. *SWEDENBORG and his Doctrine*. By Professor POND. 50 cents. 3. *Songs for my Children*. Illustrated. 30 cents. 4. *Sunday Alphabet of Animals*. Illustrated. 30 cents. 5. *Aunt KATIE'S Talks at Bedtime*. 25 cents. 6. *Walks and Talks*. 25 cents. 7. *Stories for Little Ones*. 25 cents. 8. 48 *Envelope Tracts*, in neat package. 10 cents. 9. Books for the Soldiers: *Sketch of Capt. HEDLEY VICARS*; *Sir HENRY HAVELOCK*; *The Soldier's Mission*; *The Soldier's Text Book*; and other books in flexible covers, for the pocket and knapsack, each 10 cents.

These recent publications of the Tract Society, instituted at Boston, in 1814, will be found unusually interesting. Among those for children, The Sunday Alphabet, Stories for Little Ones, and Songs for my Children, are especially attractive; the latter possess all the charm of Mother Goose, with far more wisdom in its rhymes. SWEDENBORG and his Doctrines is a revised edition, in very neat form, of Professor POND's well known work. The Memoir of DANIEL SAFFORD is one of the best religious biographies that we have ever read; it is a pleasantly written story of the outward and inner life of a devoted Christian. The books for soldiers, are also excellent, and we should be glad to have thousands of them distributed among the men of our army.

THE
MERCHANTS' MAGAZINE

AND
COMMERCIAL REVIEW.

Established July, 1839.

EDITED BY

J. SMITH HOMANS, (SECRETARY OF THE CHAMBER OF COMMERCE OF THE STATE OF NEW-YORK,)

AND WILLIAM B. DANA, ATTORNEY AT LAW.

VOLUME XLV. AUGUST, 1861. NUMBER II.

CONTENTS OF No. II., VOL. XLV.

ART.	PAGE
I. THE RAIL-ROAD SYSTEM OF MASSACHUSETTS.—1. Wealth of Massachusetts. 2. The first Canal and the first Rail-Road. 3. Early Rail-Road progress in the Commonwealth. 4. Financial Policy. 5. Rail-Road Extension to Albany. 6. The Revulsion of 1857. 7. Horse Rail-Roads. 8. The Boston and Worcester Rail-Road. 9. The Boston and Lowell Rail-Road. 10. The Boston and Providence Rail-Road. 11. The Eastern Rail-Road. 12. The Boston and Maine Rail-Road. 13. The Fitchburg Rail-Road. 14. The Fall River Rail-Road. 15. The Boston and New-York Central Rail-Road. 16. The Western Rail-Road. 17. The Troy and Greenfield Rail-Road. 18. Conclusions. 19. Recent Dividends,.....	113
II. INDUSTRIAL AND COMMERCIAL CITIES.—No. LXXX. BALTIMORE Imports and Exports. 2. Flour Inspections. 3. Tobacco Inspections, Exports and Stocks, 1848—1860. 4. Imports of Guano, 1849—1860. 5. Iron. 6. Coffee. 7. Coal Trade. 8. Oyster Trade. 9. Arrivals and Clearances,.....	131
III. COTTON, FLAX, WOOL AND SILK.—Their early History in the United States. 1. The first Legislation in Massachusetts in behalf of Domestic Industry. 2. Introduction of the Cotton Gln. 3. The first Exports of Cotton from the United States. 4. India Cotton and Silk Goods. 5. The use of Flax Fifty Years ago. 6. Effects of the Embargo and the War with England. 7. Steam Navigation and Rail-Roads. 8. The Impulse given to Manufactures by the Discovery of Gold in California,.....	186
IV. STATISTICS OF MANUFACTURES IN THE U. S. AND IN EACH STATE,....	189
V. RATES OF TOLL ON THE NEW-YORK CANALS, 1861.—Established by the Canal Board on Persons and Property Transported on the New-York State Canals,.....	145
VI. COMPARATIVE PRICES OF LEADING ARTICLES IN THE NEW-YORK MARKET, on the 1st of May, in each year, from 1849 to 1861,.....	150

VII. IMMIGRATION OF THE PORT OF NEW-YORK.—The Ports whence Emigrant Passenger Vessels have arrived, together with the nationality and number of Vessels, and number of Emigrant Passengers and others from each Port,.....	158
VIII. THE NEW-YORK CLEARING HOUSE.—Exchanges and Balances each Month to October, 1860. Deposits, Circulation and Loans of the New-York Banks,.....	157
IX. REPORT ON THE HARBOR OF NEW-YORK.—1. Report on the Physical Surveys of New-York Harbor and the Coast of Long Island, with descriptions of Apparatus for observing Currents, &c. 2. Tides and Currents of New-York Harbor and its Approaches,.....	160
X. THE PRINCIPAL HARBORS AND RIVERS OF THE UNITED STATES.—Table showing the least water in the Channels of Harbors, Rivers and Anchorages on the Coasts of the United States. By an Officer of the United States Coast Survey,...	166
XI. SHIP-BUILDING AND TONNAGE OF NEW-YORK AND THE U. S.—1. Statement exhibiting the number of American and Foreign Vessels, with their Tonnage and Crews, which entered into the several Districts of the State of New-York from Foreign Countries, during the fiscal year ending June 30, 1860. 2. Statement showing the Number and Class of Vessels built, and the Tonnage thereof, in the State of New-York, during the year ending June 30, 1860. 3. Statement showing the Number and Class of Vessels built, and the Tonnage thereof, in the several States and Territories of the United States, from 1815 to June 30, 1860, inclusive. 4. Recapitulation of the Number and Class of Vessels built in each State of the Union during the fiscal year ending June 30, 1860. 5. Statement exhibiting the amount of the Tonnage of the United States at various periods, also the Registered, and Enrolled and Licensed Tonnage employed in Steam Navigation each year,.....	173
XII. COMMERCIAL TREATIES WITH FOREIGN NATIONS, YEAR 1860.—1. Treaty of Amity and Commerce with Japan. 2. Paraguay,.....	184
CHAMBERS OF COMMERCE AND BOARDS OF TRADE.	
The New-York Chamber of Commerce,.....	200
JOURNAL OF MINING AND MANUFACTURES.	
1. Statistics of Lowell. 2. Michigan Copper Mines. 3. French Wines. 4. Flax Cotton. 5. New Mineral Discoveries in California. 6. New Silver Alloy,.....	205
FOREIGN CORRESPONDENCE OF THE MERCHANTS' MAGAZINE.	
Stock of Cotton in England—W. S. LINDSAY—European Exchanges—Bank of England—Bank of France—Advance in Railway Shares—Failures—Great Fire—New Iron Steamer Scotia—Board of Trade Returns—Social Science Association of August, 1861,.....	206
COMMERCIAL CHRONICLE AND REVIEW.	
Meeting of Congress—Fiscal Year Ended—Foreign Imports at New-York, June, 1861—Same Years 1857-1861—Heavy Exports of Produce to Europe—Foreign Trade of New-York, 1851-1861—Export of Grain, 1861—Estimates of Revenue by the Secretary of the Treasury—Imports of Dry Goods at New-York—Foreign and Domestic Exchanges—Rail-Road Dividends, 214	

THE BOOK TRADE.

Notices of new Publications in the United States,.....	222
--	-----

THE MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

SEPTEMBER, 1861.

TAXATION IN THE NEW AND OLD WORLD.

COMPARATIVE REVENUE AND EXPENDITURE OF GREAT BRITAIN, FRANCE AND THE UNITED STATES.
—SOURCES OF REVENUE IN FRANCE.—HEADS OF EXPENDITURE.—HEADS OF TAXATION IN GREAT
BRITAIN.—NEW SOURCES OF REVENUE IN THE UNITED STATES, FOR WAR PURPOSES ONLY.

In an examination of the bearings of the war tax and the revenue bills which have just become law in the United States, it may be well to compare the results with the usual revenues raised by two of the great European governments in times of peace. Such a comparison will show that, with a war on our hands, we are scarcely taxed to an amount equal to that raised from the people of France and England, when those nations are at peace.

England is now in a state of profound peace, so is France; yet their ordinary annual expenditures are, as compared with the United States—

Great Britain,.....	£ 70,000,000	or	\$ 330,000,000
France,.....	1,800,000,000 francs, or		340,000,000
The United States,.....			80,000,000

The ordinary expenditures of the United States in times of peace are seventy to eighty millions of dollars; and now, with a costly war to carry on, the expenses for a single year are estimated at less than those of Great Britain or France.

The government of Great Britain realized last year nearly seventy millions sterling from duties, internal taxes, excise, stamps, &c., viz.:

From Custom-House duties,.....	£ 23,000,000	or	\$ 111,550,000
From excise,.....	18,000,000	or	87,300,000
From property tax,.....	12,000,000	or	58,200,000
From stamps,.....	8,000,000	or	38,800,000
From small taxes,.....	2,800,000	or	13,580,000
Miscellaneous,.....	6,200,000	or	30,070,000

£ 70,000,000 or \$ 339,500,000

The British tariff alone yielded nearly double the sum ordinarily required for the expenses of the United States, viz.:

Duties on sugar,.....	£ 6,094,000	or \$ 30,470,000
Duties on tobacco,.....	5,674,000	or 28,370,000
Duties on tea,.....	5,444,000	or 57,220,000
Duties on spirits,.....	2,531,000	or 12,655,000
Duties on wines,.....	1,174,000	or 5,870,000
All other articles,.....	2,248,000	or 11,240,000

Year 1860,.....	£ 23,165,000	or \$ 115,825,000
-----------------	--------------	-------------------

We reduce the sterling values to five dollars per pound, for convenience of calculation. The real results will vary only about three per cent.

France, with a population of 35,781,628, has an annual revenue of 1,824,000,000 francs, or nearly ten dollars per head. Great Britain, with a population of 29,000,000, including Ireland and the Channel islands, has a revenue of seventy millions sterling, or nearly twelve dollars per head.

The United States, with a population of 31,429,891, had an aggregate revenue of \$565,489,840 for the ten years, 1849—1858, or an average of a little exceeding fifty-seven millions annually, or less than two dollars per head.

The sources of revenue in France last year were as follow:

BUDGET OF FRANCE FOR YEAR 1860.

RECEIPTS.		France.
Contributions directes,.....	or Direct tax,.....	469,935,648
Enregistrement, timbre et domaines,.....	Recording and government stamps,.....	358,677,000
Produits des forets et de la peche,...	Revenue from forests and fisheries,...	37,755,500
Douanes et sels,.....	Custom-House and salts,.....	228,051,000
Contributions indirectes,.....	Indirect tax,.....	485,489,000
Produits des Postes,.....	Revenue of the Post-Office,.....	57,654,000
Divers revenus,.....	Product of sundry revenues,.....	146,672,856
Produits divers,.....	Divers productions,.....	41,619,375

France, 1,825,854,379

EXPENDITURES.		France.
Dette Publique,.....	or Int. and expenses of public debt,...	560,148,676
Dotations,.....	Dotations and pensions,.....	41,979,394
Service des ministeres,.....	Services of the ministers,.....	866,932,356
Frais de regie des impots,.....	Expenses of collection of duties,...	199,747,104
Remboursements et restitutions,....	Reimbursements and restitutions,...	124,550,248
Travaux extraordinaires,.....	Public works,.....	31,600,000

France, 1,824,957,778

The enormous sum of 866,932,356 francs, or about one hundred and sixty-four millions of dollars, expended for the service of ministers, is divided as follow:

Minister of War,.....	fcs. 339,458,744
Minister of the Interior,.....	158,003,575
Minister of Marine,.....	123,503,143
Agriculture, commerce and "travaux publics," ..	71,360,100
Algiers and the Colonies,.....	38,727,510
Minister of Instruction,.....	67,430,736
All others,.....	68,448,548

Total,.....	fcs. 866,932,356
-------------	------------------

Thus the government of France, in a time of peace, maintains an army of 400,000 men, at an expense of about sixty-three millions of dollars, and a navy costing twenty-four millions.

These enormous taxes are freely paid by the French people. They are necessary to the support of government. The people accommodate themselves to the burdens, which, in fact, fall mainly upon those most able to bear them, both in England and France. For instance, the licenses paid to the British government are, by bankers, £30 each; pawnbrokers, £15; auctioneers, £10; brewers, £2 to £78; wine dealers, £10; tobacco and snuff manufacturers, £5 to £31.

	£ s.	£ s.		£ s.	£ s.
Appraisers, each,.....		2 0	Malt roasters,.....	20 0	
Attorneys,.....	6 0 to	9 0	Carriages,.....	7 10	
Bankers,.....	30 0		Distillers of spirits,.....	10 10	
Auctioneers,.....	10 0		Retailers of spirits,.....	2 4 to 14 6	
Pawnbrokers,.....	7 6 to 15 0		Tobacco and snuff manu-		
Plate dealers,.....	2 6 to 5 15		facturers,.....	5 5 to 31 10	
Brewers,.....	1 0 to 78 0		Dealers in foreign wines,.....	10 10	
Sellers of beer, &c.,.....	3 6 to 4 4		Marriages,.....	10 to 5 0	
Malsters,.....	1 0 to 4 14		Vinegar makers,.....	5 5	

The British income tax is, in time of peace, much heavier than that levied by our Congress for war purposes, viz., seven to ten pence in the pound. Incomes of £100 to £150 pay seven pence per pound.

We have not received the census returns of 1860; but those for 1850 are sufficient to demonstrate that a land tax may yield a larger sum than hitherto estimated. By the census of 1850, there were in the United States—

Horses,.....	4,335,358
Asses and mules,.....	659,229
Milch cows,.....	6,392,044
Working oxen,.....	1,699,241
Other cattle,.....	10,268,856

Making a total of..... 23,354,728

These, no doubt, amount now to thirty millions in number, every one of which should be taxed one dollar per head annually. Bank notes, bills of exchange, promissory notes and deeds might be taxed under a stamp law. A poll tax would also be equitable, so that the expenses of government should fall in part upon every one, rich and poor. Thus, if our necessities should be so great, a revenue of two hundred millions of dollars might be realized without being a burden upon any special class. viz.:

From custom-house duties,.....	\$ 50,000,000
Tax on real and personal property,.....	30,000,000
Tax \$1 per head on cows, horses, &c.,.....	23,000,000
Income tax,.....	30,000,000
Poll tax,.....	30,000,000
From stamps,.....	20,000,000
Tax on watches, gold and silver,.....	10,000,000
Tax on distilleries,.....	10,000,000

\$ 203,000,000

Stamps are another considerable source of revenue in Great Britain, bringing in eight millions sterling. Bankers' checks or drafts pay from a penny to twenty-five shillings each; foreign bills of exchange, from

one penny to thirteen shillings each; leases, from six shillings to six pounds each; wills, from ten shillings to £270 each; dogs are taxed twelve shillings each; packs of hounds, £9 to £39; horses, ten to twenty-one shillings each. In fact, for the present emergency, we might with great advantage draw upon England and France for lessons on taxation.

COFFEE AND THE COFFEE TRADE.

I. DIMINISHED PRODUCTION IN BRAZIL.—II. CAUSES OF DECLINE.—III. COFFEE MARKETS OF EUROPE AND THE UNITED STATES.

THE upward tendency of the prices of coffee has been in consequence of the increased consumption of it both in Europe and the United States, by which the stocks that formerly were equal to five or six months consumption are now reduced to barely ten weeks, and are steadily diminishing, thus proving that the supplies from producing countries are diminishing instead of increasing to supply the demand.

Brazil for many years has supplied one-half of the production of the world, but, from the following statement of the crop exports, it will appear that the maximum of production has been reached there, and that it is now on the decline.

From 1845 to 1858 the average increase for each four years was about 5 per cent. per annum; since then the decrease has been $2\frac{1}{2}$ per cent. per annum, although the crop now finishing has been a very large one. The crop of 1861 will be a short one, considerably below the average of the three preceding years.

EXPORTS OF COFFEE FROM RIO DE JANEIRO DURING THE CROP YEARS, JULY 1ST TO JUNE 30TH.

To June 30th.	Europe. Bags.	United States. Bags.	Total. Bags.	Average of 4 yrs. Bags.
1846.....	843,485 ..	684,632 ..	1,528,117	1,516,263
1847.....	1,048,785 ..	755,773 ..	1,804,558	
1848.....	848,108 ..	773,617 ..	1,612,125	
1849.....	530,181 ..	573,161 ..	1,111,332	
1850.....	1,025,902 ..	858,764 ..	1,884,676	1,817,927
1851.....	925,806 ..	947,368 ..	1,873,174	
1852.....	872,527 ..	1,037,369 ..	1,909,896	
1853.....	826,782 ..	757,181 ..	1,583,963	
1854.....	1,401,736 ..	941,512 ..	2,343,248	2,257,060
1855.....	1,134,389 ..	1,396,254 ..	2,530,643	
1856.....	1,218,315 ..	1,208,761 ..	2,427,081	
1857.....	839,646 ..	887,622 ..	1,727,269	
1858.....	707,923 ..	1,262,472 ..	1,970,395	2,022,208
1859.....	926,799 ..	831,588 ..	1,758,387	
1860.....	1,354,996 ..	1,205,053 ..	2,560,049	
1861.....	..... ..	Estimated, ..	1,800,000	

The decrease of the crop export from Rio de Janeiro is entirely owing to the effectual stoppage of the slave trade since 1850, by which the effective labor has been greatly diminished. Previous to 1850 it was estimated that the coffee estates required 5 per cent. per annum of new blacks to keep their stock good. Daily slave labor, which was 500 rs. per day, has risen to 21,000 per day, or 300 per cent. Slaves have also risen nearly in proportion, in consequence of the supply being wholly cut

off, and foreign immigration being yet on a very limited scale, notwithstanding it is very liberally encouraged by the government. Free European labor will never mix freely with slave labor, especially in a tropical climate and an entirely new cultivation.

The supply of coffee from Brazil is entirely a question of labor, and unless they can receive an adequate supply, the export will gradually diminish.

No more slave labor will be admitted. Coolie labor has been tried and will not answer. Free labor is only desired, but as yet the supply has been very limited.

The Secretary of the Treasury having recommended a duty on coffee, and Congress having levied a duty of four cents per pound, it may be well to refer to the present condition of the coffee trade of the United States :

First. The stock on hand is now larger than for many years, being 9,235 tons, or 174 per cent. beyond that of July, 1860, viz. :

Stock in	TOTAL TONS.			
	1861.	1860.	1859.	1858.
New-York,.....	11,317 ..	8,346 ..	5,314 ..	2,418
Boston,.....	891 ..	361 ..	1,535 ..	926
Philadelphia, ...	481 ..	none ..	1,874 ..	1,177
Baltimore,.....	1,557 ..	572 ..	929 ..	867
New-Orleans,.....	429 ..	1,071 ..	2,214 ..	2,214
Total tons 1st July,.....	14,675 ..	5,350 ..	11,866 ..	7,602

Second. The imports of coffee for the past six months are forty per cent. beyond the same period of 1860, viz. :

Imports at	TOTAL TONS.			
	1858.	1859.	1860.	1861
New-York,.....	15,490 ..	20,654 ..	16,090 ..	27,478
Boston,.....	3,506 ..	4,789 ..	2,788 ..	1,740
Philadelphia, ...	4,596 ..	8,073 ..	2,906 ..	4,766
Baltimore,.....	5,997 ..	7,673 ..	5,692 ..	7,466
New-Orleans,.....	9,632 ..	16,143 ..	10,853 ..	9,620
Total tons six months,.....	29,221 ..	57,332 ..	37,729 ..	51,070

Compared with the stocks of coffee in the six principal ports of Europe, the results are as follows :

Stock 1st June in	TOTAL TONS.				
	1861.	1860.	1859.	1858.	Average.
Holland,.....	19,800 ..	32,750 ..	34,600 ..	44,850 ..	33,000
Antwerp,.....	3,900 ..	3,300 ..	3,800 ..	6,700 ..	4,300
Hamburg,.....	8,500 ..	7,500 ..	6,000 ..	11,500 ..	8,375
Trieste,.....	4,850 ..	3,200 ..	2,500 ..	4,200 ..	3,687
Havre,.....	7,350 ..	4,500 ..	2,800 ..	5,650 ..	5,075
Great Britain,.....	5,750 ..	7,950 ..	6,400 ..	10,550 ..	7,663
Total tons June 1,..	50,150 ..	59,200 ..	55,600 ..	83,450 ..	62,100

The ordinary consumption of coffee in the United States is from forty-five to fifty thousand tons every six months, so that there was on 1st July a stock on hand equivalent to about two months' consumption.

The variations have been remarkable for some years. The lowest and highest prices, and lowest average and highest average, since 1846, having been as follows per pound for Rio coffee in the New-York market :

YEAR.	Lowest.	Highest.	Lowest average.	Highest average.
1846.....	6½ cts.	8½ cts.	\$ 7 04	\$ 7 60
1847.....	6½	8½	6 88	7 72
1848.....	5½	8	6 08	7 13
1849.....	5½	10½	6 84	7 88
1850.....	9	14½	10 25	11 40
1851.....	7½	11½	8 84	10 04
1852.....	7½	9½	8 12	9 53
1853.....	8	11½	9 08	10 40
1854.....	9	12½	9 40	11 48
1855.....	8½	12	9 52	11 13
1856.....	9½	12½	10 24	12 00
1857.....	9½	12½	10 52	11 73
1858.....	9½	12	10 29	11 53
1859.....	10½	13	10 95	12 21
1860.....	11½	15½	13 16	14 21

ACTS OF THE THIRTY-SEVENTH CONGRESS.

SPECIAL SESSION, JULY—AUGUST, 1861.

I. THE COLLECTION OF DUTIES ON IMPORTS. II. AN ACT TO PROVIDE INCREASED REVENUE FROM IMPORTS, TO PAY THE INTEREST ON THE PUBLIC DEBT, AND FOR OTHER PURPOSES. III. AN ACT TO INCREASE THE CONSULAR REPRESENTATION OF THE UNITED STATES DURING THE PRESENT INSURRECTION.

AN ACT FURTHER TO PROVIDE FOR THE COLLECTION OF DUTIES ON IMPORTS AND FOR OTHER PURPOSES.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That whenever it shall, in the judgment of the President, by reason of unlawful combinations of persons in opposition to the laws of the United States, become impracticable to execute the revenue laws and collect the duties on imports by the ordinary means, in the ordinary way, at any port of entry in any collection district, he is authorized to cause such duties to be collected at any port of delivery in said district until such obstruction shall cease; and in such case the surveyors at said ports of delivery shall be clothed with all the powers and be subject to all the obligations of collectors of ports of entry; and the Secretary of the Treasury, with the approbation of the President, shall appoint such number of weighers, gaugers, measurers, inspectors, appraisers and clerks as may be necessary, in his judgment, for the faithful execution of the revenue laws at said ports of delivery, and shall fix and establish the limits within which such ports of delivery are constituted ports of entry as aforesaid; and all the provisions of law regulating the issue of marine papers, the coasting trade, the warehousing of imports and collection of duties shall apply to the ports of entry so constituted in the same manner as they do to ports of entry established by the laws now in force.

SEC. 2. *And be it further enacted,* That if, from the cause mentioned in the foregoing section, in the judgment of the President, the revenue from duties on imports cannot be effectually collected at any port of entry in any collection district, in the ordinary way and by the ordinary means, or by the course provided in the foregoing section, then and in that case he may direct that the custom-house for the district be established in any secure place within said district, either on land or on

board any vessel in said district or at sea near the coast; and in such case the collector shall reside at such place, or on shipboard, as the case may be, and there detain all vessels and cargoes arriving within or approaching said district, until the duties imposed by law on said vessels and their cargoes are paid in cash: *Provided*, That if the owner or consignee of the cargo on board any vessel detained as aforesaid, or the master of said vessel, shall desire to enter a port of entry in any other district in the United States where no such obstructions to the execution of the laws exist, the master of such vessel may be permitted so to change the destination of the vessel and cargo in his manifest, whereupon the collector shall deliver him a written permit to proceed to the port so designated: *And provided further*, That the Secretary of the Treasury shall, with the approbation of the President, make proper regulations for the enforcement on shipboard of such provisions of the laws regulating the assessment and collection of duties as in his judgment may be necessary and practicable.

SEC. 3. *And be it further enacted*, That it shall be unlawful to take any vessel or cargo detained as aforesaid from the custody of the proper officers of the customs, unless by process of some court of the United States; and in case of any attempt otherwise to take such vessel or cargo by any force, or combination, or assemblage of persons, too great to be overcome by the officers of the customs, it shall and may be lawful for the President, or such person or persons as he shall have empowered for that purpose, to employ such part of the army or navy or militia of the United States, or such force of citizen volunteers as may be deemed necessary for the purpose of preventing the removal of such vessel or cargo, and protecting the officers of the customs in retaining the custody thereof.

SEC. 4. *And be it further enacted*, That if, in the judgment of the President, from the cause mentioned in the first section of this act, the duties upon imports in any collection district cannot be effectually collected by the ordinary means and in the ordinary way, or in the mode and manner provided in the foregoing sections of this act, then and in that case the President is hereby empowered to close the port or ports of entry in said district, and in such case give notice thereof by proclamation; and thereupon all right of importation, warehousing and other privileges incident to ports of entry shall cease and be discontinued at such port so closed, until opened by the order of the President on the cessation of such obstructions; and if, while said ports are so closed, any ship or vessel from beyond the United States, or having on board any articles subject to duties, shall enter or attempt to enter any such port, the same, together with its tackle, apparel, furniture and cargo, shall be forfeited to the United States.

SEC. 5. *And be it further enacted*, That whenever the President, in pursuance of the provisions of the second section of the act entitled "An act to provide for the calling forth of militia to execute the laws of the Union, suppress insurrections and repel invasions, and to repeal the act now in force for that purpose," approved February 28, 1795, shall have called forth the militia to suppress combinations against the laws of the United States, and to cause the laws to be duly executed, and the insurgents shall have failed to disperse by the time directed by the President, and when said insurgents claim to act under the authority of any State or States, and such claim is not disclaimed or repudiated by the persons

exercising the functions of government in such State or States, or in the part or parts thereof in which said combination exists, nor such insurrection suppressed by said State or States, then and in such case it may and shall be lawful for the President, by proclamation, to declare that the inhabitants of such State, or any section or part thereof, where such insurrection exists, are in a state of insurrection against the United States; and thereupon all commercial intercourse by and between the same and the citizens thereof and the citizens of the rest of the United States shall cease and be unlawful so long as such condition of hostility shall continue; and all goods and chattels, wares and merchandise, coming from said State or section into the other parts of the United States, and all proceeding to such State or section, by land or water, shall, together with the vessel or vehicle conveying the same, or conveying persons to or from such State or section, be forfeited to the United States: *Provided, however.* That the President may, in his discretion, license and permit commercial intercourse with any such part of said State or section, the inhabitants of which are so declared in a state of insurrection, in such articles, and for such time, and by such persons as he, in his discretion, may think most conducive to the public interest; and such intercourse, so far as by him licensed, shall be conducted and carried on only in pursuance of rules and regulations prescribed by the Secretary of the Treasury; and the Secretary of the Treasury may appoint such officers at places where officers of the customs are not now authorized by law as may be needed to carry into effect such licenses, rules and regulations; and officers of the customs and other officers shall receive for services under this section, and under said rules and regulations, such fees and compensation as are now allowed for similar service under other provisions of law.

SEC. 6. *And be it further enacted*, That from and after fifteen days after the issuing of the said proclamation, as provided in the last foregoing section of this act, any ship or vessel belonging in whole or in part to any citizen or inhabitant of said State or part of a State whose inhabitants are so declared in a state of insurrection, found at sea, or in any port of the rest of the United States, shall be forfeited to the United States.

SEC. 7. *And be it further enacted*, That in the execution of the provisions of this act, and of the other laws of the United States providing for the collection of duties on imports and tonnage, it may and shall be lawful for the President, in addition to the revenue cutters in service, to employ in aid thereof such other suitable vessels as may, in his judgment, be required.

SEC. 8. *And be it further enacted*, That the forfeitures and penalties incurred by virtue of this act may be mitigated and remitted, in pursuance of the authority vested in the Secretary of the Treasury by the act entitled "An act providing for mitigating or remitting the forfeitures, penalties and disabilities accruing in certain cases therein mentioned," approved March third, seventeen hundred and ninety-seven, or in cases where special circumstances may seem to require it, according to regulations to be prescribed by the Secretary of the Treasury.

SEC. 9. *And be it further enacted*, That proceedings on seizures for forfeitures under this act may be pursued in the courts of the United States in any district into which the property so seized may be taken and proceedings instituted; and such courts shall have and entertain as full jurisdiction over the same as if the seizure was made in that district.

Approved July 13, 1861.

THE TARIFF ACT OF AUGUST, 1861.

AN ACT TO PROVIDE INCREASED REVENUE FROM IMPORTS, TO PAY THE INTEREST ON THE PUBLIC DEBT, AND FOR OTHER PURPOSES.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That from and after the date of the passage of this act, in lieu of the duties heretofore imposed by law on the articles hereinafter mentioned, and on such as may now be exempt from duty, there shall be levied, collected and paid, on the goods, wares and merchandise herein enumerated and provided for, imported from foreign countries, the following duties and rates of duty, that is to say :

First. On Raw Sugar, commonly called Muscovado or Brown Sugar, and on Sugars not advanced above No. 12, Dutch standard, by claying, boiling, clarifying or other process, and on Syrup of Sugar, or of Sugar Cane and Concentrated Molasses, or Concentrated Melado, 2 cents per pound ; and on White and Clayed Sugar, when advanced beyond the raw state, above No. 12, Dutch standard, by clarifying or other process, and not yet refined, $2\frac{1}{2}$ cents per pound ; on Refined Sugars, whether loaf, lump, crushed or pulverized, 4 cents per pound ; on Sugars, after being refined, when they are tintured, colored or in any way adulterated, and on Sugar Candy, 6 cents per pound.

On Molasses, 5 cents per gallon.

Provided, That all Syrups of Sugar or of Sugar Cane, Concentrated Molasses or Melado, entered under the name of Molasses, or any other name than Syrup of Sugar or of Sugar Cane, Concentrated Molasses or Concentrated Melado, shall be liable to forfeiture to the United States.

On all Teas, 15 cents per pound.

On Almonds, 4 cents per pound ; Shelled Almonds, 6 cents per pound.

On Brimstone, crude, \$3 per ton ; on Brimstone, in rolls, \$6 per ton.

On Coffee, of all kinds, 4 cents per pound.

On Cocoa, 3 cents per pound ; on Cocoa Leaves and Cocoa Shells, 2 cents per pound ; on Cocoa, prepared or manufactured, 8 cents per pound.

On Chicory Root, 1 cent per pound ; and on Chicory, ground, 2 cents per pound.

On Chocolate, 6 cents per pound.

On Cassia, 10 cents per pound ; on Cassia Buds, 15 cents per pound.

On Cinnamon, 20 cents per pound.

On Cloves, 8 cents per pound.

On Cayenne Pepper, 6 cents per pound ; on Cayenne Pepper, ground, 8 cents per pound.

On Currants, 5 cents per pound.

On Argol, 3 cents per pound.

On Cream Tartar, 6 cents per pound.

On Tartaric Acid and Tartar Emetic and Rochelle Salts, 10 cents per pound.

On Dates, 2 cents per pound.

On Figs, 5 cents per pound.

On Ginger Root, 3 cents per pound; on Ginger, ground, 5 cents per pound.

On Liquorice Paste and Juice, 5 cents per pound; Liquorice Root, 1 cent per pound.

On Mace and Nutmegs, 25 cents per pound.

On Nuts of all kinds, not otherwise provided for, 2 cents per pound.

On Pepper, 6 cents per pound.

On Pimento, 6 cents per pound.

On Plums, 5 cents per pound.

On Prunes, 5 cents per pound.

On Raisins, 5 cents per pound.

On unmanufactured Russia Hemp, \$40 per ton; on Manilla and other Hems of India, \$25 per ton.

On Lead, in pigs or bars, \$1 50 per 100 pounds; in sheets, \$2 25 per 100 pounds; on White Lead, dry or ground in oil, and Red Lead, \$2 25 per 100 pounds.

On Salt, in sacks, 18 cents per 100 pounds, and in bulk, 12 cents per 100 pounds.

On Soda Ash, $\frac{1}{2}$ cent per pound; on Bicarbonate of Soda, 1 cent per pound; on Sal Soda, $\frac{1}{2}$ cent per pound; on Caustic Soda, 1 cent per pound.

On Chloride of Lime, 30 cents per one hundred pounds.

On Saltpetre, crude, 1 cent per pound; refined or partially refined, 2 cents per pound.

On Spirits of Turpentine, 10 cents per gallon.

On Oil of Cloves, 70 cents per pound.

On Brandy, \$1 25 per gallon.

On Spirits distilled from grain or other material, 50 cents per gallon.

On Gum Copal, and other Gums or resinous substances used for the same or similar purposes as Gum Copal, 10 cents per pound.

SEC. 2. *And be it further enacted*, That, from and after the day and year aforesaid, there shall be levied, collected and paid, on the importation of the articles hereinafter mentioned, the following duties, that is to say:

On Arrow Root, 20 per centum *ad valorem*.

On Ginger, preserved or pickled, 30 per centum *ad valorem*.

On Limes, Lemons, Oranges, Bananas and Plantains, 20 per centum *ad valorem*.

On Peruvian Bark, 15 per centum *ad valorem*.

On Quinine, 30 per centum *ad valorem*.

On Rags, of whatever material, 10 per centum *ad valorem*.

On Gunpowder, 30 per centum *ad valorem*.

On Feathers and Downs, 30 per centum *ad valorem*.

On Hides, 10 per centum *ad valorem*.

On Sole and Bend Leather, 30 per centum *ad valorem*.

On India Rubber, raw or unmanufactured, 10 per centum *ad valorem*.

On India Rubber Shoes and Boots, 30 per centum *ad valorem*.

On Ivory unmanufactured, and on vegetable Ivory, 10 per centum *ad valorem*.

On Wines of all kinds, 50 per centum *ad valorem*.

On Silk in the gum, not more advanced in the manufacture than singles, tram, and thrown or organzine, 25 per centum *ad valorem*.

On all Silks valued at not over \$1 per square yard, 30 per centum *ad valorem*.

On all Silks valued at over \$1 per square yard, 40 per centum *ad valorem*.

On all Silk Velvets, or Velvets of which Silk is the component material of chief value, valued at \$3 per square yard or under, 35 per centum *ad valorem*; valued at over \$3 per square yard, 40 per centum *ad valorem*.

On Floss Silks, 30 per centum *ad valorem*.

On Silk Ribbons, Galloons, Braids, Fringes, Laces, Tassels, Buttons, Button Cloths, Trimmings, and on Silk Twist, Twist composed of Mohair and Silk, Sewing Silk in the gum or purified, and all other manufactures of Silk, or of which Silk shall be the component material of chief value, not otherwise provided for, 40 per centum *ad valorem*.

SEC. 3. *And be it further enacted*, That all articles, goods, wares and merchandise, imported from beyond the Cape of Good Hope in foreign vessels, not entitled by reciprocal treaties to be exempt from discriminating duties, tonnage and other charges, and all other articles, goods, wares and merchandise, not imported direct from the place of their growth or production, or in foreign vessels, entitled by reciprocal treaties to be exempt from discriminating duties, tonnage and other charges, shall be subject to pay, in addition to the duties imposed by this act, 10 per centum *ad valorem*. *Provided*, That this rule shall not apply to goods, wares and merchandise imported from beyond the Cape of Good Hope in American vessels.

SEC. 4. *And be it further enacted*, That from and after the passage of this act, there shall be allowed on all articles wholly manufactured of materials imported, on which duties have been paid, when exported, a drawback equal in amount to the duty paid on such materials, and no more, to be ascertained under such regulations as shall be prescribed by the Secretary of the Treasury: *Provided*, That 10 per centum on the amount of all drawbacks, so allowed, shall be retained for the use of the United States, by the collectors paying such drawbacks respectively.

SEC. 5. *And be it further enacted*, That all goods, wares and merchandise actually on shipboard and bound to the United States, and all goods, wares and merchandise on deposit in warehouses or public stores at the date of the passage of this act, shall be subject to pay such duties as provided by law before and at the time of the passage of this act: *And provided further*, That all goods deposited in public store or bonded warehouse after this act takes effect and goes into operation, if designed for consumption in the United States, must be withdrawn therefrom, or the duties thereon paid in three months after the same are deposited; and goods designed for exportation and consumption in foreign countries may be withdrawn by the owner at any time before the expiration of three years after the same are deposited; such goods, if not withdrawn in three years, to be regarded as abandoned to the government, and sold under such regulations as the Secretary of the Treasury may prescribe, and the proceeds paid into the Treasury: *Provided*, That merchandise, upon which the owner may have neglected to pay duties within three months from the time of its deposit, may be withdrawn and entered for consumption at any time within two years of the time of its deposit, upon the payment of the legal duties,

with an addition of 25 per centum thereto: *Provided, also*, That merchandise upon which duties have been paid, if exported to a foreign country within three years, shall be entitled to return duties, proper evidence of such merchandise having been landed abroad to be furnished to the collector by the importer, one per centum of said duties to be retained by the government.

SEC. 6. *And be it further enacted*, That the act entitled "An act to provide for the payment of outstanding Treasury Notes, to authorize a loan, to regulate and fix the duties on imports, and for other purposes," approved March 2d, 1861, be, and the same is hereby amended as follows, that is to say:

First.—In section six, article 1st, after the words "in Cordials and," strike out "Liquors" and insert "Liqueurs."

Second.—In the same section, after the word "represent," insert "*Provided, also*, That no lower rate or amount of duty shall be levied, collected and paid on Brandy, Spirits and all other spirituous beverages, than that now fixed by law for the description of first proof, but shall be increased in proportion for any greater strength than the strength of first proof."

Third.—Section twelve, article first, after the words "eighteen cents," where they first occur, insert "or less."

Fourth.—Section thirteen, article second, after the word "manufacturer," insert "except Hosiery."

Fifth.—In the same section, article third, strike out "Wool" wherever it occurs, and insert in each place "Worsted."

Sixth.—In section fourteen, article first, after the words "ten per centum" insert "*ad valorem*."

Seventh.—In section fifteen, before the word "Yarns," insert "Hemp;" in the same section, after the word "Sheetings," insert "of Flax or Hemp," and strike out "Jute Goods," and, in lieu thereof, insert "Jute Yarns."

Eighth.—In section twenty-two, strike out the words "Unwrought Clay, \$3 per ton."

Ninth.—In section nineteen, strike out "compositions of glass or paste, not set, intended for use by jewellers."

Tenth.—In section twenty-two, strike out "compositions of glass or paste, when set."

Eleventh.—In section twenty-three, article Sheathing Metal, strike out "yard" and insert "foot."

In section seven, clause fifth, the words "on Screws, washed or plated, and all other Screws, of iron or any other metal," shall be stricken out, and the words "on Screws, of any other metal than iron," shall be inserted.

SEC. 7. *And be it further enacted*, That all acts and parts of acts repugnant to the provisions of this act be, and the same are hereby repealed; *Provided*, That the existing laws shall extend to and be in force for the collection of the duties imposed by this act for the prosecution and punishment of all offences, and for the recovery, collection, distribution and remission of all fines, penalties and forfeitures, as fully and effectually as if every regulation, penalty, forfeiture, provision, clause, matter and thing to that effect in the existing laws contained had been inserted in and re-enacted by this act.

SEC. 8. *And be it further enacted*, That a direct tax of twenty millions of dollars be and is hereby annually laid upon the United States, and the same shall be and is hereby apportioned to the States, respectively, in manner following:*

Maine, ...	\$ 420,826 00	Indiana, ...	\$ 904,875 33
New-Hampshire, ...	218,406 66	Illinois, ...	1,146,551 33
Vermont, ...	211,068 00	Missouri, ...	761,127 33
Massachusetts, ...	824,581 33	Kansas, ...	71,743 33
Rhode Island, ...	116,963 66	Arkansas, ...	261,886 00
Connecticut, ...	308,214 00	Michigan, ...	501,763 33
New-York, ...	2,603,918 66	Florida, ...	77,522 66
New-Jersey, ...	450,134 00	Texas, ...	355,106 66
Pennsylvania, ...	1,946,719 33	Iowa, ...	452,088 00
Delaware, ...	74,681 33	Wisconsin, ...	519,688 66
Maryland, ...	436,823 33	California, ...	254,538 66
Virginia, ...	937,550 66	Minnesota, ...	108,524 00
North Carolina, ...	576,194 66	Oregon, ...	35,140 66
South Carolina, ...	363,570 66	New-Mexico, ...	62,648 00
Georgia, ...	584,267 33	Utah, ...	26,982 00
Alabama, ...	529,313 33	Washington, ...	7,755 33
Mississippi, ...	413,084 66	Nebraska, ...	19,312 00
Louisiana, ...	385,886 66	Nevada, ...	4,592 66
Ohio, ...	1,567,089 33	Colorado, ...	22,905 33
Kentucky, ...	713,695 33	Dacotah, ...	3,241 33
Tennessee, ...	669,498 00	District Columbia, ...	49,437 33

SEC. 9. *And be it further enacted*, That, for the purpose of assessing the above tax and collecting the same, the President of the United States be and he is hereby authorized to divide, respectively, the States and territories of the United States and the District of Columbia into convenient collection districts, and to nominate and, by and with the advice of the Senate, to appoint an assessor and a collector for each such district, who shall be freeholders and resident within the same: *Provided*, That any of said States and territories, as well as the District of Columbia, may, if the President shall deem it proper, be erected into one district: *And provided further*, That the appointment of said assessors and collectors, or any of them, shall not be made until on or after the second Tuesday in February, one thousand eight hundred and sixty-two.

SEC. 10. *And be it further enacted*, That before any such collector shall enter upon the duties of his office he shall execute a bond for such amount as shall be prescribed by the Secretary of the Treasury, with sureties to be approved as sufficient by the Solicitor of the Treasury, containing the condition that said collector shall justly and faithfully account for to the United States, and pay over, in compliance with the order or regulations of the Secretary of the Treasury, all public moneys which may come into his hands or possession; which bond shall be filed in the office of the First Comptroller of the Treasury, to be by him directed to be put in suit upon any breach of the condition thereof. And such collectors shall, from time to time, renew, strengthen and increase their official bonds, as the Secretary of the Treasury may direct.

SEC. 11. *And be it further enacted*, That each of the assessors shall divide his district into a convenient number of assessment districts, within each of which he shall appoint one respectable freeholder to be an assist-

* The apportionment by States is here thrown into tabular form for greater convenience of reference.

ant assessor; and each assessor and assistant assessor so appointed, and accepting the appointment, shall, before he enters on the duties of his appointment, take and subscribe, before some competent magistrate, or some collector, to be appointed by this act, (who is hereby empowered to administer the same,) the following oath or affirmation, to wit: "I, A. B., do swear, or affirm, [as the case may be,] that I will, to the best of my knowledge, skill and judgment, diligently and faithfully execute the office and duties of assessor for, [naming the assessment district,] without favor or partiality, and that I will do equal right and justice in every case in which I shall act as assessor." And a certificate of such oath or affirmation shall be delivered to the collector of the district for which such assessor or assistant assessor shall be appointed. And every assessor or assistant assessor acting in the said office without having taken the said oath or affirmation shall forfeit and pay one hundred dollars, one moiety thereof to the use of the United States and the other moiety thereof to him who shall first sue for the same; to be recovered, with costs of suit, in any court having competent jurisdiction.

SEC. 12. *And be it further enacted*, That the Secretary of the Treasury shall establish regulations suitable and necessary for carrying this act into effect; which regulations shall be binding on each assessor and his assistants in the performance of the duties enjoined by or under this act, and shall also frame instructions for the said assessors and their assistants; pursuant to which instructions the said assessors shall, on the first day of March next, direct and cause the several assistant assessors in the district to inquire after and concerning all lands, lots of ground, with their improvements and dwelling-houses, made liable to taxation under this act, by reference as well to any lists of assessment or collection taken under the laws of the respective States as to any other records or documents, and by all other lawful ways and means, and to value and enumerate the said objects of taxation in the manner prescribed by this act, and in conformity with the regulations and instructions above mentioned.

SEC. 13. *And be it further enacted*, That the said direct tax laid by this act shall be assessed and laid on the value of all lands and lots of ground, with their improvements and dwelling-houses, which several articles subject to taxation shall be enumerated and valued, by the respective assessors, at the rate each of them is worth in money on the first day of April, eighteen hundred and sixty-two: *Provided, however*, That all property, of whatever kind, coming within any of the foregoing descriptions, and belonging to the United States, or any State, or permanently or specially exempted from taxation by the laws of the State wherein the same may be situated at the time of the passage of this act, together with such property belonging to any individual, who actually resides thereon, as shall be worth the sum of five hundred dollars, shall be exempted from the aforesaid enumeration and valuation, and from the direct tax aforesaid: *And provided further*, That in making such assessments due regard shall be had to any valuation that may have been made under the authority of the State or territory at any period nearest to said first day of April.

SEC. 14. *And be it further enacted*, That the respective assistant assessors shall, immediately after being required as aforesaid by the assessors, proceed through every part of their respective districts, and shall require all persons owning, possessing or having the care or management of any lands, lots of ground, buildings or dwelling-houses, lying and being within

the collection district where they reside, and liable to a direct tax as aforesaid, to deliver written lists of the same, which lists shall be made in such manner as may be directed by the assessor, and, as far as practicable, conformably to those which may be required for the same purpose under the authority of the respective States.

SEC. 15. *And be it further enacted*, That if any person owning, possessing or having the care or management of property liable to a direct tax as aforesaid, shall not be prepared to exhibit a written list when required as aforesaid, and shall consent to disclose the particulars of any and all the lands and lots of ground, with their improvements, buildings and dwelling-houses, taxable as aforesaid, then and in that case it shall be the duty of the officer to make such list, which, being distinctly read and consented to, shall be received as the list of such person.

SEC. 16. *And be it further enacted*, That if any such person shall deliver or disclose to any assessor or assistant assessor appointed in pursuance of this act, and requiring a list or lists as aforesaid, any false or fraudulent list, with intent to defeat or evade the valuation or enumeration hereby intended to be made, such person so offending, and being thereof convicted before any court having competent jurisdiction, shall be fined in a sum not exceeding five hundred dollars, at the discretion of the court, and shall pay all costs and charges of prosecution; and the valuation and enumeration required by this act shall, in all such cases, be made, as aforesaid, upon lists according to the form above described, to be made out by the assessors and assistant assessors respectively, which list the said assessors are hereby authorized and required to make according to the best information they can obtain, and for the purpose of making which they are hereby authorized to enter into and upon all and singular the premises respectively; and from the valuation and enumeration so made there shall be no appeal.

SEC. 17. *And be it further enacted*, That in case any person shall be absent from his place of residence at the time an assessor shall call to receive the list of such person, it shall be the duty of such assessor or assistant assessor to leave at the house or place of residence of such person, with some person of suitable age and discretion, a written note or memorandum, requiring him to present to such assessor the list or lists required by this act within ten days from the date of such note or memorandum.

SEC. 18. *And be it further enacted*, That if any person, on being notified or required as aforesaid, shall refuse or neglect to give such list or lists as aforesaid within the time required by this act, it shall be the duty of the assessor for the assessment district within which such person shall reside, and he is hereby authorized and required to enter into and upon the lands, buildings, dwelling-houses and premises, if it be necessary, of such persons so refusing or neglecting, and to make, according to the best information which he can obtain, and on his own view and information, such lists of the lands and lots of ground, with their improvements, buildings and dwelling-houses, owned or possessed, or under the care or management of such person, as are required by this act, which lists, so made and subscribed by such assessor, shall be taken and reputed as good and sufficient lists of the persons and property for which such person is to be taxed for the purposes of this act.

SEC. 19. *And be it further enacted*, That whenever there shall be in

any assessment district any property, lands and lots of ground, buildings or dwelling-houses, not owned or possessed by or under the care and management of any person or persons within such district, and liable to be taxed as aforesaid, and no list of which shall be transmitted to the assessor in the manner provided by this act, it shall be the duty of the assessor for such district, and he is hereby authorized and required, to enter into and upon the real estate, if it be necessary, and take such view thereof, and make lists of the same, according to the form prescribed, which lists, being subscribed by the said assessor, shall be taken and reputed as good and sufficient lists of such property, under and for the purposes of this act.

SEC. 20. *And be it further enacted*, That the owners, possessors or persons having the care or management of lands, lots of ground, buildings and dwelling-houses, not lying or being within the assessment district in which they reside, shall be permitted to make out and deliver the lists thereof required by this act, (provided the assessment district in which the said objects of taxation lie or be is therein distinctly stated,) at the time and in the manner prescribed, to the assessor of the assessment district wherein such persons reside. And it shall be the duty of the assessors, in all such cases, to transmit such lists, at the time and in the manner prescribed for the transmission of the lists of the objects of taxation lying and being within their respective assessment districts, to the assessor of the collection district wherein the said objects of taxation shall lie or be immediately after the receipt thereof; and the said lists shall be valid and sufficient for the purposes of this act; and on the delivery of every such list, the person making and delivering the same shall pay to the assessor one dollar, which he shall retain to his own use.

SEC. 21. *And be it further enacted*, That the lists aforesaid shall be taken with reference to the day fixed for that purpose by this act as aforesaid; and the assistant assessors respectively, after collecting the said lists, shall proceed to arrange the same, and to make two general lists, the first of which shall exhibit, in alphabetical order, the names of all persons liable to pay a tax under this act residing within the assessment district, together with the value and assessment of the objects liable to taxation within such district for which each such person is liable, and, whenever so required by the assessor, the amount of direct tax payable by each person on such objects under the State laws imposing direct taxes; and the second list shall exhibit, in alphabetical order, the names of all persons, residing out of the collection district, owners of property within the district, together with the value and assessment thereof, with the amount of direct tax payable thereon as aforesaid. The forms of the said general lists shall be devised and prescribed by the assessor, and lists taken according to such form shall be made out by the assistant assessors and delivered to the assessors within sixty days after the day fixed by this act as aforesaid, requiring lists from individuals. And if any assistant assessor shall fail to perform any duty assigned by this act within the time prescribed by his precept, warrant or other legal instructions, not being prevented therefrom by sickness or other unavoidable accident, every such assistant assessor shall be discharged from office, and shall, moreover, forfeit and pay two hundred dollars, to be recovered, for the use of the United States, in any court having competent jurisdiction, with costs of suit.

SEC. 22. *And be it further enacted*, That immediately after the valuations and enumerations shall have been completed as aforesaid, the assessor in each collection district shall, by advertisement in some public newspaper, if any there be in such district, and by written notifications, to be publicly posted up in at least four of the most public places in each collection district, advertise all persons concerned of the place where the said lists, valuations and enumerations may be seen and examined, and that, during twenty-five days after the publication of the notifications as aforesaid, appeals will be received and determined by him relative to any erroneous or excessive valuations or enumerations by the assessor. And it shall be the duty of the assessor in each collection district, during twenty-five days after the date of publication to be made as aforesaid, to submit the proceedings of the assistant assessors, and the list by them received or taken as aforesaid, to the inspection of any and all persons who shall apply for that purpose; and the said assessors are hereby authorized to receive, hear and determine, in a summary way, according to law and right, upon any and all appeals which may be exhibited against the proceedings of the said assessors: *Provided always*, That it shall be the duty of said assessor to advertise and attend, not less than two successive days of the said twenty-five, at the court-house of each county within his collection district, there to receive and determine upon the appeals aforesaid: *And provided, also*, That the question to be determined by the assessor, on an appeal respecting the valuation of property, shall be, whether the valuation complained of be or be not in a just relation or proportion to other valuations in the same collection district. And all appeals to the assessors as aforesaid shall be made in writing, and shall specify the particular cause, matter or thing respecting which a decision is requested, and shall, moreover, state the ground or principle of inequality or error complained of. And the assessor shall have power to re-examine and equalize the valuations as shall appear just and equitable; but no valuation shall be increased without a previous notice of at least five days, to the party interested, to appear and object to the same, if he judge proper, which notice shall be given by a note in writing, to be left at the dwelling-house of the party by such assessor or an assistant assessor.

SEC. 23. *And be it further enacted*, That whenever a State, territory or the District of Columbia shall contain more than one collection district, the assessor shall have power, on examination of the lists rendered by the assistant assessors, according to the provisions of this act, to revise, adjust and equalize the valuation of lands and lots of ground, with their improvements and dwelling-houses, between such collection districts, by deducting from or adding to either such a rate per centum as shall appear just and equitable.

SEC. 24. *And be it further enacted*, That the assessors shall, immediately after the expiration of the time for hearing and deciding appeals, make out correct lists of the valuation and enumeration in each collection district, and deliver the same to the board of assessors hereinafter constituted in and for the States respectively. And it shall be the duty of the assessors in each State to convene in general meeting at such time and place as shall be appointed and directed by the Secretary of the Treasury. And the said assessors, or a majority of them, so convened, shall constitute, and they are hereby constituted, a board of assessors for the pur-

poses of this act, and shall make and establish such rules and regulations as to them shall appear necessary for carrying such purposes into effect, not being inconsistent with this act or the laws of the United States.

SEC. 25. *And be it further enacted*, That the said board of assessors, convened and organized as aforesaid, shall and may appoint a suitable person or persons to be their clerk or clerks, but not more than one for each collection district, who shall hold his or their office or offices at the pleasure of said board of assessors, and whose duty it shall be to receive, record and preserve all tax lists, returns and other documents delivered and made to the said board of assessors, and who shall take an oath (or affirmation if conscientiously scrupulous of taking an oath) faithfully to discharge his or their trust; and in default of taking such oath or affirmation, previous to entering on the duties of such appointment, or on failure to perform any part of the duties enjoined on him or them respectively by this act, he or they shall respectively forfeit and pay the sum of two hundred dollars for the use of the United States, to be recovered in any court having competent jurisdiction, and shall also be removed from office.

SEC. 26. *And be it further enacted*, That it shall be the duty of the said clerks to record the proceedings of the said board of assessors, and to enter on the record the names of such of the assessors as shall attend any general meeting of the board of assessors for the purposes of this act. And if any assessor shall fail to attend such general meeting, his absence shall be noted on the said record, and he shall, for every day he may be absent therefrom, forfeit and pay the sum of ten dollars for the use of the United States. And if any assessor shall fail or neglect to furnish the said board of assessors with the lists of valuation and enumeration of each assessment district within his collection district within three days after the time appointed as aforesaid for such general meeting of the said board of assessors, he shall forfeit and pay the sum of five hundred dollars for the use of the United States, and moreover shall forfeit his compensation as assessor. And it shall be the duty of the clerks of the said board of assessors to certify to the Secretary of the Treasury an extract of the minutes of the board, showing such failures or neglect, which shall be sufficient evidence of the forfeiture of such compensation to all intents and purposes: *Provided, always*, That it shall be in the power of the Secretary of the Treasury to exonerate such assessor or assessors from the forfeiture of the said compensation, in whole or in part, as to him shall appear just and equitable.

SEC. 27. *And be it further enacted*, That if the said board of assessors shall not, within three days after the first meeting thereof as aforesaid, be furnished with all the lists of valuation of the several counties and State districts of any State, they shall nevertheless proceed to make out the equalization and apportionment by this act directed, and they shall assign to such counties and State districts the valuation lists of which shall not have been furnished, such valuation as they shall deem just and right; and the valuation thus made to such counties and State districts by the board of assessors shall be final, and the proper quota of direct tax shall be and is hereby declared to be imposed thereon accordingly.

SEC. 28. *And be it further enacted*, That it shall be the duty of the said board of assessors diligently and carefully to consider and examine the said lists of valuation, and they shall have power to revise, adjust and

equalize the valuation of property in any county or State district, by adding thereto, or deducting therefrom, such a rate per centum as shall, under the valuation of the several counties and State districts, be just and equitable: *Provided*, That the relative valuation of property in the same county shall not be changed, unless manifest error or imperfection shall appear in any of the lists of valuation, in which case the said board of assessors shall have power to correct the same, as to them shall appear just and right. And if, in consequence of any revisal, change and alteration of the said valuation, any inequality shall be produced in the apportionment of the said direct tax to the several States as aforesaid, it shall be the duty of the Secretary of the Treasury to report the same to Congress, to the intent that provision may be made by law for rectifying such inequality.

SEC. 29. *And be it further enacted*, That as soon as the said board of assessors shall have completed the adjustment and equalization of the valuation aforesaid, they shall proceed to apportion to each county and State district its proper quota of direct tax. And the said board of assessors shall, within twenty days after the time appointed by the Secretary of the Treasury for their first meeting, complete the said apportionment, and shall record the same; they shall thereupon further deliver to each assessor a certificate of such apportionment, together with the several lists by the assessors respectively presented to the board as aforesaid, and transmit to the Secretary of the Treasury a certificate of the apportionment by them made as aforesaid; and the assessors, respectively, shall thereupon proceed to revise their respective lists, and alter and make the same in all respects conformable to the apportionment aforesaid by the said board of assessors; and the said assessors, respectively, shall make out lists containing the sums payable according to the provisions of this act upon every object of taxation in and for each collection district; which lists shall contain the name of each person residing within the said district, owning or having the care or superintendence of property lying within the said district which is liable to the said tax, when such person or persons are known, together with the sums payable by each; and where there is any property within any collection district liable to the payment of the said tax, not owned or occupied by or under the superintendence of any person resident therein, there shall be a separate list of such property, specifying the sum payable, and the names of the respective proprietors, where known. And the said assessors shall furnish to the collectors of the several collection districts, respectively, within thirty-five days after the apportionment is completed as aforesaid, a certified copy of such list or lists for their proper collection districts, and in default of performance of the duties enjoined on the board of assessors and assessors respectively, by this section, they shall severally and individually forfeit and pay the sum of five hundred dollars to the use of the United States, to be recovered in any court having competent jurisdiction. And it is hereby enacted and declared, that the valuation, assessment, equalization and apportionment made by the said board of assessors as aforesaid, shall be and remain in full force and operation for laying, levying and collecting, yearly and every year, the annual direct tax by this act laid and imposed, until altered, modified or abolished by law.

SEC. 30. *And be it further enacted*, That there shall be allowed and

paid to the several assessors and assistant assessors, for their services under this act—to each assessor two dollars per day for every day employed in making the necessary arrangements and giving the necessary instructions to the assistant assessors for the valuation, and three dollars per day for every day employed in hearing appeals, revising valuations, and making out lists agreeably to the provisions of this act, and one dollar for every hundred taxable persons contained in the tax list, as delivered by him to said board of assessors; to each assistant assessor two dollars for every day actually employed in collecting lists and making valuations, the number of days necessary for that purpose to be certified by the assessor and approved by the commissioner of taxes, and one dollar for every hundred taxable persons contained in the tax lists, as completed and delivered by him to the assessor; to each of the assessors constituting the board of assessors as aforesaid, for every day's actual attendance at said board, the sum of three dollars, and for travelling to and from the place designated by the Secretary of the Treasury ten cents for each mile, by the most direct and usual route; and to each of the clerks of said board two dollars for every day's actual attendance thereon. And the said board of assessors, and said assessors, respectively, shall be allowed their necessary and reasonable charges for stationery and blank books used in the execution of their duties; and the compensation herein specified shall be in full for all expenses not otherwise particularly authorized, and shall be paid at the Treasury, and such amount as shall be required for such payment is hereby appropriated.

SEC. 31. *And be it further enacted*, That each collector, on receiving a list as aforesaid, from the said assessors, respectively, shall subscribe three receipts; one of which shall be given on a full and correct copy of such list, which list shall be delivered by him to, and shall remain with, the assessor of his collection district, and shall be open to the inspection of any person who may apply to inspect the same; and the other two receipts shall be given on aggregate statements of the lists aforesaid, exhibiting the gross amount of taxes to be collected in each county or State district contained in the collection district, one of which aggregate statements and receipts shall be transmitted to the Secretary, and the other to the First Comptroller of the Treasury.

SEC. 32. *And be it further enacted*, That each collector, before receiving any list as aforesaid, for collection, shall give bond, with one or more good and sufficient sureties, to be approved by the Solicitor of the Treasury, in the amount of the taxes assessed in the collection district for which he has been or may be appointed; which bond shall be payable to the United States, with condition for the true and faithful discharge of the duties of his office according to law, and particularly for the due collection and payment of all moneys assessed upon such district, and the said bond shall be transmitted to the Solicitor of the Treasury, and, after approval by him, shall be deposited in the office of the First Comptroller of the Treasury: *Provided, always*, That nothing herein contained shall be deemed to annul or in any wise to impair the obligation of the bond heretofore given by any collector; but the same shall be and remain in full force and virtue, any thing in this act to the contrary thereof in any wise notwithstanding.

SEC. 33. *And be it further enacted*, That the annual amount of the taxes so assessed shall be and remain a lien upon all lands and other real

estate of the individuals who may be assessed for the same, during two years after the time it shall annually become due and payable; and the said lien shall extend to each and every part of all tracts or lots of land or dwelling-houses, notwithstanding the same may have been divided or alienated in part.

SEC. 34. *And be it further enacted*, That each collector shall be authorized to appoint, by an instrument of writing under his hand and seal, as many deputies as he may think proper, to be by him compensated for their services, and also to revoke the powers of any deputy, giving public notice thereof in that portion of the district assigned to such deputy; and each such deputy shall have the like authority, in every respect, to collect the direct tax so assessed within the portion of the district assigned to him which is by this act vested in the collector himself; but each collector shall, in every respect, be responsible both to the United States and to individuals, as the case may be, for all moneys collected, and for every act done as deputy collector by any of his deputies whilst acting as such: *Provided*, That nothing herein contained shall prevent any collector from collecting himself the whole or any part of the tax so assessed and payable in his district.

SEC. 35. *And be it further enacted*, That each of the said collectors shall, within ten days after receiving his collection list from the assessors, respectively as aforesaid, and annually, within ten days after he shall be so required by the Secretary of the Treasury, advertise in one newspaper printed in his collection district, if any there be, and by notifications to be posted up in at least four public places in his collection district, that the said tax has become due and payable, and state the times and places at which he or they will attend to receive the same, which shall be within twenty days after such notification; and with respect to persons who shall not attend according to such notifications, it shall be the duty of each collector, in person or by deputy, to apply once at their respective dwellings within such district, and there demand the taxes payable by such persons, which application shall be made within sixty days after the receipt of the collection lists as aforesaid, or after the receipt of the requisition of the Secretary of the Treasury as aforesaid, by the collectors; and if the said taxes shall not be then paid, or within twenty days thereafter, it shall be lawful for such collector, or his deputies, to proceed to collect the said taxes by distraint and sale of the goods, chattels or effects of the persons delinquent as aforesaid. And in case of such distraint, it shall be the duty of the officer charged with the collection to make, or cause to be made, an account of the goods or chattels which may be distrained, a copy of which, signed by the officer making such distraint, shall be left with the owner or possessor of such goods, chattels or effects, or at his or her dwelling, with some person of suitable age and discretion, with a note of the sum demanded, and the time and place of sale; and the said officer shall forthwith cause a notification to be publicly posted up at two of the taverns nearest to the residence of the person whose property shall be distrained, or at the court-house of the same county, if not more than ten miles distant, which notice shall specify the articles distrained, and the time and place for the sale thereof, which time shall not be less than ten days from the date of such notification, and the place proposed for sale not more than five miles distant from the place of making such distraint: *Provided*, That in any case of distraint for the payment of the tax afore-

said, the goods, chattels or effects so distrained shall and may be restored to the owner or possessor if, prior to the sale thereof, payment or tender thereof shall be made to the proper officer charged with the collection, of the full amount demanded, together with such fee for levying, and such sum for the necessary and reasonable expense of removing and keeping the goods, chattels or effects so distrained, as may be allowed in like cases by the laws or practice of the State wherein the distraint shall have been made; but in case of non-payment or tender as aforesaid, the said officers shall proceed to sell the said goods, chattels or effects at public auction, and shall and may retain from the proceeds of such sale the amount demandable for the use of the United States, with the necessary and reasonable expenses of distraint and sale, and a commission of five per centum thereon for his own use, rendering the overplus, if any there be, to the person whose goods, chattels or effects shall have been distrained: *Provided*, That it shall not be lawful to make distraint of the tools or implements of a trade or profession, beasts of the plough necessary for the cultivation of improved lands, arms, or household furniture, or apparel necessary for a family.

SEC. 36. *And be it further enacted*, That whenever goods, chattels or effects sufficient to satisfy any tax upon buildings, dwelling-houses or lands and their improvements, owned, occupied or superintended by persons known or residing within the same collection district, cannot be found, the collector having first advertised the same for thirty days, in a newspaper printed within the collection district, if such there be, and having posted up, in at least ten public places within the same, a notification of the intended sale, thirty days previous thereto, shall proceed to sell at public sale so much of the said property as may be necessary to satisfy the taxes due thereon, together with an addition of twenty per centum to the said taxes. But in all cases where the property liable to a direct tax under this act may not be divisible, so as to enable the collector by a sale of part thereof to raise the whole amount of the tax, with all costs, charges and commissions, the whole of such property shall be sold, and the surplus of the proceeds of the sale, after satisfying the tax, costs, charges and commissions, shall be paid to the owner of the property or his legal representatives; or if he or they cannot be found, or refuse to receive the same, then such surplus shall be deposited in the Treasury of the United States, to be there held for the use of the owner or his legal representatives, until he or they shall make application therefor to the Secretary of the Treasury, who, upon such application, shall, by warrant on the Treasury, cause the same to be paid to the applicant. And if the property advertised for sale as aforesaid cannot be sold for the amount of the tax due thereon, with the said additional twenty per centum thereto, the collector shall purchase the same in behalf of the United States for the amount aforesaid: *Provided*, That the owner or superintendent of the property aforesaid, after the same shall have been, as aforesaid, advertised for sale, and before it shall have been actually sold, shall be allowed to pay the amount of the tax thereon, with an addition of ten per centum on the same, on the payment of which the sale of the property shall not take place: *Provided, also*, That the owners, their heirs, executors or administrators, or any person on their behalf, shall have liberty to redeem the lands and other property sold as aforesaid, within two years from the time of sale, upon payment to the collector for the use of the

purchaser, with interest for the same, at the rate of twenty per centum per annum; and no deed shall be given in pursuance of such sale until the time of redemption shall have expired. And the collector shall render a distinct account of the charges incurred in offering and advertising for sale such property, and shall pay into the Treasury the surplus, if any there be, of the aforesaid addition of twenty per centum, or ten per centum, as the case may be, after defraying the charges. And in every case of the sale of real estate which shall be made under the authority of this act by the collectors, respectively, or their lawful deputies, respectively, the deeds for the estate so sold shall be prepared, made, executed and proved or acknowledged at the time or times prescribed in this act by the collectors, respectively, within whose collection district such real estate shall be situated, in such form of law as shall be authorized and required by the laws of the United States, or by the law of the State in which such real estate lies, for making, executing, proving and acknowledging deeds of bargain and sale or other conveyances for the transfer and conveyance of real estate; and for every deed so prepared, made, executed, proved and acknowledged, the purchaser or grantee shall pay to the collector the sum of two dollars, for the use of the collector or other person effecting the sale of the real estate thereby conveyed.

SEC. 37. *And be it further enacted*, That with respect to property lying within any collection district not owned or occupied, or superintended by some person residing in such collection district, and on which the tax shall not have been paid to the collector within ninety days after the day on which he shall have received the collection lists from the said assessors respectively as aforesaid, or the requisition of the Secretary of the Treasury as aforesaid, the collector shall transmit lists of the same to one of the collectors within the same State, to be designated for that purpose by the Secretary of the Treasury; and the collector who shall have been thus designated by the Secretary of the Treasury, shall transmit receipts for all the lists received as aforesaid, to the collector transmitting the same; and the collectors, thus designated in each State by the Secretary of the Treasury, shall cause notifications of the taxes due as aforesaid, and contained in the lists thus transmitted to them, to be published for sixty days in at least one of the newspapers published in the State; and the owners of the property, on which such taxes may be due, shall be permitted to pay to such collector the said tax, with an addition of ten per centum thereon: *Provided*, That such payment is made within one year after the day on which the collector of the district where such property lies had notified that the tax had become due on the same.

SEC. 38. *And be it further enacted*, That when any tax, as aforesaid, shall have remained unpaid for the term of one year as aforesaid, the collector in the State where the property lies, and who shall have been designated by the Secretary of the Treasury as aforesaid, having first advertised the same for sixty days in at least one newspaper in the State, shall proceed to sell, at public sale, so much of the said property as may be necessary to satisfy the taxes due thereon, together with an addition of twenty per centum thereon; or if such property is not divisible as aforesaid, the whole thereof shall be sold, and accounted for in the manner hereinbefore provided. If the property advertised for sale cannot be sold for the amount of the tax due thereon, with the said addition thereon, the collector shall purchase the same in behalf of the United States for such

amount and addition. And the collector shall render a distinct account of the charges incurred in offering and advertising for sale such property, and pay into the Treasury the surplus, if any, of the aforesaid addition of ten or twenty per centum, as the case may be, after defraying the said charges.

SEC. 39. *And be it further enacted*, That the collectors designated as aforesaid by the Secretary of the Treasury shall deposit with the clerks of the District Court of the United States in the respective States, and within which district the property lies, correct lists of the tracts of land or other real property sold by virtue of this act for non-payment of taxes, together with the names of owners or presumed owners, and of the purchasers of the same at the public sales aforesaid, and of the amount paid by said purchasers for the same; the owners, their heirs, executors or administrators, or any person in their behalf, shall have liberty to redeem the lands or other property sold as aforesaid, within two years from the time of sale, upon payment to the clerk aforesaid, for the use of the purchaser, his heirs or assigns, of the amount paid by such purchaser for the said land, or other real property, with interest for the same at the rate of twenty per centum per annum, and of a commission of five per centum on such payment for the use of the clerk aforesaid. The clerks shall, on application, pay to the purchasers the moneys thus paid for their use; and the collectors, respectively, shall give deeds for the lands or property aforesaid to the purchasers entitled to the same, in all cases where the same shall not have been redeemed within two years as aforesaid, by the original owners thereof, or their legal representatives, or any person in their behalf, and deposit such deeds with such clerk. And the said clerk shall be entitled to receive from the purchaser, for his own use, the sum of one dollar, in addition to the sum hereinbefore made payable to the collector, for every such deed, to be paid on the delivery thereof to such purchasers. And in all cases where lands may be sold under this act for the payment of taxes, belonging to infants, persons of insane mind, married women or persons beyond sea, such persons shall have the term of two years after their respective disabilities shall have been removed, or their return to the United States, to redeem lands thus sold, on their paying into the clerk's office aforesaid the amount paid by the purchaser, with fifty per centum addition thereto, together with ten per centum interest per annum on the aggregate sum, and on their payment to the purchaser of the land aforesaid a compensation for all improvements he may have made on the premises, subsequent to his purchase, the value of which improvements to be ascertained by three or more neighboring freeholders, to be appointed by the clerk aforesaid, who, on actual view of the premises, shall assess the value of such improvements, on their oaths, and make a return of such valuation to the clerk immediately. And the clerk of the court shall receive such compensation for his services herein, to be paid by and received from the parties, like costs of suit, as the judge of the district court shall, in that respect, tax and allow.

SEC. 40. *And be it further enacted*, That the several collectors shall, at the expiration of every month after they shall respectively commence their collections in the next and every ensuing year, transmit to the Secretary of the Treasury a statement of the collections made by them, respectively, within the month, and pay over quarterly, or sooner, if

required by the Secretary of the Treasury, the moneys by them respectively collected within the said term; and each of the said collectors shall complete the collection of all sums annually assigned to him for collection as aforesaid, shall pay over the same into the Treasury, and shall render his final account to the Treasury Department within six months from and after the day when he shall have received the collection lists from the said board of assessors or the said requisition of the Secretary of the Treasury, as aforesaid: *Provided, however,* That the period of one year and three months from the said annual day shall be annually allowed to the collector designated in each State as aforesaid, by the Secretary of the Treasury with respect to the taxes contained in the list transmitted to him by the other collectors as aforesaid.

SEC. 41. *And be it further enacted,* That each collector shall be charged with the whole amount of taxes by him receipted, whether contained in the lists delivered to him by the principal assessors, respectively, or transmitted to him by other collectors; and shall be allowed credit for the amount of taxes contained in the lists transmitted in the manner above provided to other collectors, and by them receipted as aforesaid; and also for the taxes of such persons as may have absconded, or become insolvent, subsequent to the date of the assessment, and prior to the day when the tax ought, according to the provisions of this act, to have been collected: *Provided,* That it shall be proved to the satisfaction of the First Comptroller of the Treasury that due diligence was used by the collector, and that no property was left from which the tax could have been recovered; and each collector, designated in each State as aforesaid, by the Secretary of the Treasury, shall receive credit for the taxes due for all tracts of land which, after being offered by him for sale in manner aforesaid, shall or may have been purchased by him in behalf of the United States.

SEC. 42. *And be it further enacted,* That if any collector shall fail either to collect or to render his account, or to pay over in the manner or within the times hereinbefore provided, it shall be the duty of the First Comptroller of the Treasury, and he is hereby authorized and required immediately after such delinquency to report the same to the Solicitor of the Treasury, who shall issue a warrant of distress against such delinquent collector and his sureties, directed to the marshal of the district, therein expressing the amount of the taxes with which the said collector is chargeable, and the sums, if any, which have been paid. And the said marshal shall, himself, or by his deputy, immediately proceed to levy and collect the sum which may remain due, by distress and sale of the goods and chattels, or any personal effects of the delinquent collector; and for want of goods, chattels or effects aforesaid, sufficient to satisfy the said warrant, the same may be levied on the person of the collector, who may be committed to prison, there to remain until discharged in due course of law; and furthermore, notwithstanding the commitment of the collector to prison as aforesaid, or if he abscond, and goods, chattels and effects cannot be found sufficient to satisfy the said warrant, the said marshal or his deputy shall and may proceed to levy and collect the sum which remains due, by distress and sale of the goods and chattels, or any personal effects of the surety or sureties of the delinquent collector. And the amount of the sums due from any collector as aforesaid, shall, and the same are hereby declared to be a lien upon the

lands and real estate of such collector and his sureties, until the same shall be discharged according to law. And for want of goods and chattels or other personal effects of such collector or his sureties, sufficient to satisfy any warrant of distress, issued pursuant to the preceding section of this act, the lands and real estate of such collector and his sureties, or so much thereof as may be necessary for satisfying the said warrant, after being advertised for at least three weeks in not less than three public places in the collection district, and in one newspaper printed in the county or district, if any there be, prior to the proposed time of sale, may and shall be sold by the marshal or his deputy; and for all lands and real estate sold in pursuance of the authority aforesaid, the conveyances of the marshals or their deputies, executed in due form of law, shall give a valid title against all persons claiming under delinquent collectors or their sureties aforesaid. And all moneys that may remain of the proceeds of such sale, after satisfying the said warrant of distress, and paying the reasonable costs and charges of sale, shall be returned to the proprietor of the lands or real estate sold as aforesaid.

SEC. 43. *And be it further enacted*, That each and every collector, or his deputy, who shall exercise or be guilty of any extortion or oppression, under color of this act, or shall demand other or greater sums than shall be authorized by this act, shall be liable to pay a sum not exceeding two thousand dollars, to be recovered by and for the use of the party injured, with costs of suit, in any court having competent jurisdiction; and each and every collector, or his deputies, shall give receipts for all sums by them collected and retained in pursuance of this act.

SEC. 44. *And be it further enacted*, That separate accounts shall be kept at the Treasury of all moneys received from the direct tax, and from the internal duties or income tax, in each of the respective States, territories and District of Columbia and collection districts; and that separate accounts shall be kept of the amount of each species of duty that shall accrue, with the moneys paid to the collectors, assessors and assistant assessors, and to the other officers employed in each of the respective States, territories and collection districts, which accounts it shall be the duty of the Secretary of the Treasury, annually, in the month of December, to lay before Congress.

SEC. 45. *And be it further enacted*, That the assessors, respectively, shall, yearly, and in every year after the expiration of one year from the second Tuesday of February next, inquire and ascertain, in the manner by the seventh section of this act provided, what transfers and changes of property in lands, lots of ground, buildings and dwelling-houses have been made and effected in their respective districts, subsequent to the next preceding valuation, assessment and apportionment of the direct tax by this act laid; and within twenty days thereafter they shall make out three lists of such transfers and changes, and transmit one list to the Secretary of the Treasury, another list to the Commissioner of Taxes, and the third shall be delivered to the collector of the collection district. And it shall yearly, and every year, after the said year one thousand eight hundred and sixty-two, be the duty of the Secretary of the Treasury to notify the collectors of the several collection districts the day on which it shall be the duty of the said collectors to commence laying and collecting the annual direct tax by this act laid and imposed, according to the assessment of the tax lists to them delivered by the said assessors as

aforesaid, subject only to such alterations therein as shall be just and proper, in the opinion of the Secretary of the Treasury, to conform to the transfers and changes aforesaid, ascertained by the assessors as aforesaid; and the said collectors shall, annually, in all respects, proceed in and conclude the collection of the said direct tax in the same manner and within the time hereinbefore provided and prescribed.

SEC. 46. *And be it further enacted*, That in case any State, territory or the District of Columbia, after notice given of its intention to assume and pay, or to levy, collect and pay said direct tax herein provided for and apportioned to said State, territory or district, shall, in any year after the taking effect of this act, fail to pay the amount of said direct tax, or any part thereof, as provided in this act, in such cases it shall be lawful for the Secretary of the Treasury of the United States to appoint United States assessors, assistant assessors and collectors, as in this act provided, whose duty it shall be to proceed forthwith, under such regulations as the said Secretary of the Treasury shall prescribe, to collect all or any part of said direct tax the same as though said State, territory or district had not given notice, nor assumed to levy, collect and pay said taxes, or any part thereof.

SEC. 47. *And be it further enacted*, That any person who shall be convicted of wilfully taking a false oath or affirmation, in any of the cases in which an oath or affirmation is required to be taken by this act, shall be liable to the pains and penalties to which persons are liable for wilful and corrupt perjury, and shall, moreover, forfeit the sum of five hundred dollars.

SEC. 48. *And be it further enacted*, That there shall be allowed to the collectors appointed under this act, in full compensation for their services and that of their deputies in carrying this act into effect, a commission of four per centum upon the first hundred thousand dollars, one per centum upon the second one hundred thousand dollars, and one-half of one per centum upon all sums above two hundred thousand dollars; such commissions to be computed upon the amounts by them respectively paid over and accounted for under the instructions of the Treasury Department: *Provided*, That in no case shall such commissions exceed the sum of eight thousand dollars for a principal officer and two thousand dollars for an assistant. And there shall be further allowed to each collector their necessary and reasonable charges for stationery and blank books used in the performance of their official duties, which, after being duly examined and certified by the Commissioner of Taxes, shall be paid out of the Treasury.

SEC. 49. *And be it further enacted*, That, from and after the first day of January next, there shall be levied, collected and paid upon the annual income of every person residing in the United States, whether such income is derived from any kind of property, or from any profession, trade, employment or vocation carried on in the United States or elsewhere, or from any other source whatever, if such annual income exceeds the sum of eight hundred dollars, a tax of three per centum on the amount of such excess of such income above eight hundred dollars: *Provided*, That upon such portion of said income as shall be derived from interest upon treasury notes or other securities of the United States, there shall be levied, collected and paid a tax of one and one-half per centum. Upon the income, rents or dividends accruing upon any property, securities or stocks owned

in the United States by any citizen of the United States residing abroad, there shall be levied, collected and paid a tax of five per centum, excepting that portion of said income derived from interest on treasury notes and other securities of the government of the United States, which shall pay one and one-half per centum. The tax herein provided shall be assessed upon the annual income of the persons herein named for the year next preceding the time for assessing said tax, to wit, the year next preceding the first of January, eighteen hundred and sixty-two; and the said taxes, when so assessed and made public, shall become a lien on the property or other sources of said income for the amount of the same, with the interest and other expenses of collection until paid: *Provided*, That, in estimating said income, all national, State or local taxes assessed upon the property from which the income is derived shall be first deducted.

SEC. 50. *And be it further enacted*, That it shall be the duty of the President of the United States, and he is hereby authorized, by and with the advice and consent of the Senate, to appoint one principal assessor and one principal collector in each of the States and territories of the United States and in the District of Columbia, to assess and collect the internal duties or income tax imposed by this act, with authority in each of said officers to appoint so many assistants as the public service may require, to be approved by the Secretary of the Treasury; the said taxes to be assessed and collected under such regulations as the Secretary of the Treasury may prescribe. The said collectors herein authorized to be appointed shall give bonds, to the satisfaction of the Secretary of the Treasury, in such sums as he may prescribe, for the faithful performance of their respective duties. And the Secretary of the Treasury shall prescribe such reasonable compensation for the assessment and collection of said internal duties or income tax as may appear to him just and proper; not, however, to exceed in any case the sum of two thousand five hundred dollars per annum for the principal officers herein referred to, and twelve hundred dollars per annum for an assistant. The assistant collectors herein provided shall give bonds, to the satisfaction of the principal collector, for the faithful performance of their duties. The Secretary of the Treasury is further authorized to select and appoint one or more depositaries in each State, for the deposit and safe-keeping of the moneys arising from the taxes herein imposed when collected, and the receipt of the proper officer of such depositary to the collector, for the moneys deposited by him, shall be the proper voucher for such collector in the settlement of his account at the Treasury Department. And he is further authorized and empowered to make such officer or depositary the disbursing agent of the Treasury, for the payment of all interest due to the citizens of such State upon the Treasury notes or other government securities issued by authority of law. And he shall also prescribe the forms of returns to be made to the department by all assessors and collectors appointed under the authority of this act. He shall also prescribe the form of oath or obligation to be taken by the several officers authorized or directed to be appointed and commissioned by the President under this act, before a competent magistrate, duly authorized to administer oaths, and the form of the return to be made thereon to the Treasury Department.

SEC. 51. *And be it further enacted*, That the tax herein imposed by the forty-ninth section of this act shall be due and payable on or before the thirtieth day of June, in the year eighteen hundred and sixty-two, and

all sums due and unpaid at that day shall draw interest thereafter at the rate of six per centum per annum; and if any person or persons shall neglect or refuse to pay, after due notice, said tax assessed against him, her or them, for the space of more than thirty days after the same is due and payable, it shall be lawful for any collector or assistant collector, charged with the duty of collecting such tax, and they are hereby authorized to levy the same on the visible property of any such person, or so much thereof as may be sufficient to pay such tax, with the interest due thereon, and the expenses incident to such levy and sale, first giving thirty days' public notice of the time and place of the sale thereof; and in case of the failure of any person or persons, authorized to act as agent or agents for the collection of the rents or other income of any person residing abroad, shall neglect or refuse to pay the tax assessed thereon, (having had due notice,) for more than thirty days after the thirtieth of June, eighteen hundred and sixty-two, the collector or his assistant, for the district where such property is located, or rents or income is payable, shall be and hereby is authorized to levy upon the property itself, and to sell the same, or so much thereof as may be necessary to pay the tax assessed, together with the interest and expenses incident to such levy and sale, first giving thirty days' public notice of the time and place of sale. And in all cases of the sale of property herein authorized, the conveyance by the officer authorized to make the sale, duly executed, shall give a valid title to the purchaser, whether the property sold be real or personal. And the several collectors and assistants appointed under the authority of this act may, if they find no property to satisfy the taxes assessed upon any person by authority of the forty-ninth section of this act, and which such person neglects to pay as hereinbefore provided, shall have power, and it shall be their duty to examine under oath the person assessed under this act, or any other person, and may sell at public auction, after ten days' notice, any stocks, bonds or choses in action belonging to said person, or so much thereof as will pay such tax and the expenses of such sale; and in case he refuses to testify, the said several collectors and assistants shall have power to arrest such person and commit him to prison, to be held in custody until the same shall be paid, with interest thereon, at the rate of six per centum per annum, from the time when the same was payable as aforesaid, and all fees and charges of such commitment and custody. And the place of custody shall in all cases be the same provided by law for the custody of persons committed for any cause by the authority of the United States; and the warrant of the collector, stating the cause of commitment, shall be sufficient authority to the proper officer for receiving and keeping such person in custody until the amount of said tax and interest, and all fees and the expense of such custody, shall have been fully paid and discharged, which fees and expenses shall be the same as are chargeable under the laws of the United States in other cases of commitment and custody. And it shall be the duty of such collector to pay the expenses of such custody, and the same, with his fees, shall be allowed on settlement of his accounts. And the person so committed shall have the same right to be discharged from such custody as may be allowed by the laws of the State or territory, or the District of Columbia, where he is so held in custody, to persons committed under the laws of such State or territory, or District of Columbia, for the non-payment of taxes, and in the manner provided by such laws;

or he may be discharged at any time by order of the Secretary of the Treasury.

SEC. 52. *And be it further enacted*, That, should any of the people of any of the States or territories of the United States, or the District of Columbia, be in actual rebellion against the authority of the government of the United States at the time this act goes into operation, so that the laws of the United States cannot be executed therein, it shall be the duty of the President, and he is hereby authorized to proceed to execute the provisions of this act, within the limits of such State or territory, or District of Columbia, so soon as the authority of the United States therein is re-established, and to collect the sums which would have been due from the persons residing or holding property or stocks therein, with the interest due, at the rate of six per centum per annum thereon, until paid, in the manner and under the regulations prescribed in the foregoing sections of this act.

SEC. 53. *And be it further enacted*, That any State or territory, and the District of Columbia, may lawfully assume, assess, collect and pay into the Treasury of the United States the direct tax, or its quota thereof, imposed by this act upon the State, territory or the District of Columbia, in its own way and manner, by and through its own officers, assessors and collectors; that it shall be lawful to use for this purpose the last or any subsequent valuation list or appraisal made by State or territorial authority for the purpose of State or territorial taxation therein, next preceding the date when this act takes effect, to make any laws or regulations for these purposes, to fix or change the compensation to officers, assessors and collectors; and any such State, territory or district, which shall give notice by the Governor, or other proper officer thereof, to the Secretary of the Treasury of the United States, on or before the second Tuesday of February next, and in each succeeding year thereafter, of its intention to assume and pay, or to assess, collect and pay into the Treasury of the United States the direct tax imposed by this act, shall be entitled, in lieu of the compensation, pay per diem and per centage herein prescribed and allowed to assessors, assistant assessors and collectors of the United States, to a deduction of fifteen per centum on the quota of direct tax apportioned to such State, territory or the District of Columbia levied and collected by the said State, territory and District of Columbia through its said officers: *Provided, however*, That the deduction shall only be made to apply to such part or parts of the same as shall have been actually paid into the Treasury of the United States on or before the last day of June in the year to which such payment relates, and a deduction of ten per centum to such part or parts of the same as shall have been actually paid into the Treasury of the United States on or before the last day of September in the year to which such payment relates, such year being regarded as commencing on the first day of April: *And provided further*, That whenever notice of the intention to make such payment by the State or territory and the District of Columbia shall have been given to the Secretary of the Treasury, in accordance with the foregoing provisions, no assessors, assistant assessors or collectors, in any State, territory or district, so giving notice, shall be appointed, unless said State or territory shall be in default: *And provided, further*, That the amount of direct tax apportioned to any State, territory or District of Columbia shall be liable to be paid and satisfied, in whole or in part, by the

release of such State, territory or district, duly executed to the United States, of any liquidated and determined claim of such State, territory or district of equal amount against the United States: *Provided*, That, in case of such release, such State, territory or district shall be allowed the same abatement of the amount of such tax as would be allowed in case of the payment of the same in money.

SEC. 54. *And be it further enacted*, That it shall be the duty of the collectors aforesaid in their respective districts, and they are hereby authorized to collect the duties imposed by this act, and to prosecute for the recovery of the same, and for the recovery of any sum or sums which may be forfeited by virtue of this act; and all fines, penalties and forfeitures which shall be incurred by force of this act, shall and may be sued for and recovered in the name of the United States, or of the collector within whose district any such fine, penalty or forfeiture shall have been incurred, by bill, plaint or information; one moiety thereof to the use of the United States, and the other moiety thereof to the use of such collector.

SEC. 55. *And be it further enacted*, That the amount of all debts due to the United States by any collector, under this act, whether secured by bond or otherwise, shall and are hereby declared to be a lien upon the lands and real estate of such collector, and of his sureties, if he shall have given bond, from the time when suit shall be instituted for recovering the same; and, for want of goods and chattels and other personal effects of such collector or his sureties to satisfy any judgment which shall or may be recovered against them, respectively, such lands and real estate may be sold at public auction, after being advertised for at least three weeks in not less than three public papers within the collection district, and in one newspaper printed in the county, if any there be, at least six weeks prior to the time of sale; and for all lands or real estate sold in pursuance of the authority aforesaid, the conveyances of the marshals or their deputies, executed in due form of law, shall give a valid title against all persons claiming under such collector or his sureties, respectively.

SEC. 56. *And be it further enacted*, That, for superintending the collection of the direct tax and internal duties or income tax laid by this act, an officer is hereby authorized in the Treasury Department, to be called "Commissioner of Taxes," who shall be charged, under the direction of the Secretary, with preparing all the forms necessary for the assessment and collection of the tax and duties aforesaid, with preparing, signing and distributing all such licenses as are required, and with the general superintendence of all the officers employed in assessing and collecting said tax and duties; said commissioner shall be appointed by the President, upon the nomination of the Secretary of the Treasury, and he shall receive an annual salary of three thousand dollars. The Secretary of the Treasury may assign the necessary clerks to the office of said commissioner, whose aggregate salaries shall not exceed six thousand dollars per annum, and the amount required to pay the salaries of said commissioner and clerks is hereby appropriated.

SEC. 57. *And be it further enacted*, That in case of the sickness or temporary disability of a collector to discharge such of his duties as cannot, under existing laws, be discharged by a deputy, they may be devolved by him upon a deputy; *Provided*, Information thereof be immediately communicated to the Secretary of the Treasury, and shall not be

disapproved by him: *And provided*, That the responsibility of the collector or his sureties to the United States shall not be thereby affected or impaired.

SEC. 58. *And be it further enacted*, That in case a collector shall die, resign or be removed, the deputy of such collector longest in service at the time immediately preceding, who shall have been longest employed by him, may and shall, until a successor shall be appointed, discharge all the duties of said collector, and for whose conduct, in case of the death of the collector, his estate shall be responsible to the United States.

Approved August 5, 1861.

AN ACT TO INCREASE THE CONSULAR REPRESENTATION OF THE UNITED STATES DURING THE PRESENT INSURRECTION.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That the President of the United States may, by and with the advice and consent of the Senate, appoint consuls at any foreign ports where he shall deem it advisable for the purpose of preventing piracy, with such compensation, not exceeding fifteen hundred dollars per annum, as he shall think proper, to hold their offices respectively during the pleasure of the President, and in every case such compensation to cease with the restoration of internal peace within the United States. And the President may, during the present insurrection, increase the compensation of any consuls in foreign ports, if he shall deem it necessary, so as not, however, to exceed the sum of fifteen hundred dollars in any case. But this power shall cease with the re-establishment of internal peace as aforesaid.

Approved August 2, 1861.

CIRCULAR TO COLLECTORS AND OTHER OFFICERS OF THE CUSTOMS.

Treasury Department, August 7, 1861.

The act of Congress of August 5, 1861, entitled "An act to provide increased revenue from imports, to pay interest on the public debt, and for other purposes," so far as it relates to the duties on imports, goes into immediate effect, and I publish that portion of it for the information and government of officers of the customs and others concerned.

In executing the provision relating to drawback duties on the exportation of foreign imported merchandise, contained in the fifth section, collectors of the customs will, until otherwise instructed, be governed, in general, by the provisions of the collection act of March 2, 1799, in regard to drawbacks. The right of drawback will attach only to merchandise imported under the provisions of the said act of August 5, 1861, and exported in the original packages.

In allowing drawback of duties on the exportation of merchandise manufactured from imported raw material, as provided for by the fourth section, collectors will be governed by the regulations of the 27th of March last, relating to drawback on cordage. Adequate proof of the quantity, quality and value of raw material used in the manufacture, must, however, until otherwise directed, be submitted in each case for my decision as to the rate of drawback to be allowed. Full and detailed instructions will be prepared and issued as soon as practicable.

S. P. CHASE, *Secretary of the Treasury.*

REPORT ON THE SALT TRADE OF THE UNITED STATES,

FOR THE YEAR 1860.

By SAMUEL HOTALING, of New-York.

In our report on Salt, for the year 1859, as set forth in the last annual publication of the Chamber of Commerce, the quantity of salt manufactured in the United States, in that year, was estimated at about 14,000,000 bushels. The quantity of salt manufactured in the United States during the year 1860 varies considerably from the quantity made the previous year; amounting to about three-quarters of a million of bushels deficiency. While some of our States have *increased* their production of salt, other States have *decreased* the manufacture of this article, viz: the State of New-York produced, in the Onondaga Valley, 1,300,825 bushels of salt *less* in the year 1860 than was produced in the same district during the year 1859, and the production of 1859 was 138,947 bushels less than the production of salt in 1858. While, during the same time, the States of Michigan, California and Texas have considerably *increased* their production of salt during the same periods. We have found considerable difficulty in obtaining accurate information as to the amount of salt produced in the several States of our Union, so as to be able to give for public information, and satisfactorily to our own mind, reliable and accurate statistical facts pertaining to their salt production. We have, with a view to this object, applied to twelve of the salt-producing States for information upon this subject, and find, upon receipt of replies from *them*, that only *five* of the States require by law any report to be made of their own production of salt. It is certainly desirable that the legislative bodies of the salt producing States, and also the Territories, will not only imitate the State of Michigan in its efforts to encourage the production of this necessary *article*, but will also *require*, by law, an annual report to be made for public information, not only of salt but also of all *their mining, agricultural and mechanical* productions, with their *cash valuation*. Such information, made every year for public use, by each of the States and Territories of our Union, would be most valuable for all such citizens as desire statistical details. Ten years are too long a period for our citizens to wait for such very important and necessary statistical information from each division of the federal Union.

ESTIMATED QUANTITY OF SALT MANUFACTURED IN THE UNITED STATES IN THE YEAR 1860.

	<i>Bushels.</i>		<i>Bushels.</i>
Massachusetts.....	325,000	Michigan.....	40,000
New-York.....	5,593,447	Texas.....	50,000
Pennsylvania.....	950,000	Florida.....	70,000
Virginia.....	3,650,000	California.....	250,000
Kentucky.....	290,000	Utah.....	60,000
Ohio.....	2,050,000		
Illinois.....	60,000		
			13,868,447

The whole amount of salt inspected on the Onondaga Salt Springs Reservation, in the State of New-York, during the year 1860, was 5,593,447 bushels, being equal to 1,118,650 barrels of 280 lbs. each. Of this quan-

tity 1,462,565 bushels have been the product of the Solar Salt Vats, and 4,130,882 bushels, usually termed fine salt, has been made in kettles by boiling.

The manufacture of salt is conducted under an arrangement for supplies of *brine*, and for convenience of inspection and supervision, which provides for a division of the Reservation into four manufacturing districts, each being under the immediate control and regulation of an independent *suite of deputies*. The following table gives the quantities and description of salt inspected in each division :

DISTRICT No. 1, OR SYRACUSE.

Fine salt,.....bush.	691,935	
Solar salt,.....	451,650	
Fine ground, for table,.....	4,444	
		1,148,029

DISTRICT No. 2, OR SALINA.

Fine salt,.....bush.	2,057,140	
Solar salt,.....	319,324	
Fine ground,.....	11,287	
Solar do.	256,857	
		2,644,608

DISTRICT No. 3, OR LIVERPOOL.

Fine salt,.....bush.	704,145	
Solar salt,.....	12,452	
		716,597

DISTRICT No. 4, OR GEDDES.

Fine salt,.....bush.	661,931	
Solar salt,.....	422,282	
		1,084,213

Total inspection as above, in bushels,.....		5,593,447
---	-------	-----------

An experiment has been made the past summer for producing a superior quality of fine salt for table use, and also for dairy purposes, particularly butter-making, adopted partly from the English method, which has proved very successful and promises beneficial results. This salt is brought to a finer crystalization and a more thorough separation from the impurities of the brine in the kettles than by the common mode, and is afterwards dried by artificial heat, and passed through rollers and sieves to bring it to a state of complete pulverization. It is subsequently "medicated" by a patented application, recently discovered, which finishes the process. Salt produced by this method has a clear, dazzling white appearance, is always pulverulent and retains scarce a trace of impurity. This description of salt, which has received the denomination of "Factory-Filled," is admirably adapted to the curing of butter, and will doubtless prove, upon trial, to be equal to the best brands of English salt, of which a very large proportion is sold in this country.

By a careful analysis, made by Professor Cook, of Burlington, N. J., (as follows,) it will be seen that this salt is fully equal to the Ashton salt of Liverpool, England :

ANALYSIS OF THE "FACTORY-FILLED" SALT MADE AT SYRACUSE, N. Y.

	<i>Per Cent.</i>		<i>Per Cent.</i>
Chloride of sodium, (salt,).....	97.600	Chloride of calcium,.....	000
Sulphate of lime, (combined,)...	1.124	Chloride of magnesium,.....	000
do. do. (free,).....	227	Water,.....	810
Sulphate of magnesia,.....	077		
Carbonate of lime,.....	162		100.000

ANALYSIS OF "ASHTON SALT," OF LIVERPOOL, ENGLAND.

	<i>Per Cent.</i>		<i>Per Cent.</i>
Chloride of sodium, (salt,).....	97.660	Chloride of magnesium,.....	059
Sulphate of lime, (combined,)...	1.381	Water,.....	900
Chloride of calcium,.....	000		
			100.000

Rutgers' College, January 11th, 1861.

GEORGE H. COOK.

The legislature of the State of Michigan, in 1859, by law declared that there should be paid a bounty of 10 cents per bushel on salt manufactured from water obtained by boring in the State; consequently eight wells have been sunk upon the Saginaw and five at Grand Rapids, and a quality of water has been found, which for strength and purity is unsurpassed in the United States, and from which very rapid progress is now making in the manufacture of salt.

IMPORTS OF SALT INTO THE UNITED STATES FOR THE YEAR 1860.

FROM	<i>Bushels.</i>	<i>Value.</i>
Swedish West Indies,.....	16,734	\$ 1,530
Danish West Indies,.....	10,818	672
Hamburg,.....	509	97
Bremen,.....	5,050	422
Dutch West Indies,.....	522,263	45,928
England,.....	10,335,256	1,143,602
Ireland,.....	29,985	2,950
Canada,.....	68,102	9,026
Other British North American Possessions,...	58,870	4,053
British West Indies,.....	1,705,510	136,410
British Guiana,.....	16,720	1,310
France on the Atlantic,.....	4,233	283
France on the Mediterranean,.....	54,240	2,713
French West Indies,.....	9,775	743
Spain on the Atlantic,.....	472,158	31,059
Spain on the Mediterranean,.....	1,360	125
Cuba,.....	8,560	475
Portugal,.....	25,520	2,006
Madeira,.....	676	42
Cape de Verde Islands,.....	9,752	879
Azores,.....	2,409	270
Two Sicilies,.....	444,085	15,409
San Domingo,.....	4,200	308
Mexico,.....	228,287	22,555
Sandwich Islands,.....	58,064	8,131
China,.....	1,150	147
Total United States,.....	14,094,227	\$ 1,431,140

PRICES OF SALT AT THE SYRACUSE SALT WORKS IN 1860.

	<i>Fine, bbls.</i>	<i>Coarse, bbls.</i>
January,.....	\$ 1 50	\$ 1 60
February,.....	1 50	1 60
March,.....	1 40 to 1 50	\$ 1 50 to 1 60
April,.....	1 50	1 60
May,.....	1 40 to 1 50	1 60
June,.....	1 40 to 1 50	1 60
July,.....	1 40 to 1 50	1 60
August,.....	1 35 to 1 40	1 50
September,.....	1 40 to 1 50	1 40 to 1 50
October,.....	1 40 to 1 50	1 40 to 1 50
November,.....	1 55	1 55
December,.....	1 75	1 75

In our last report, as given in the annual publication, pages 43 and 44, was given a minute and careful statement of the mode of manufacturing salt in the different States of our Union; the different localities at which it is manufactured, and the various salt works; the depth of the wells; the cost of manufacture; the prices of the various modes of transportation through the country; the quantity made at each place; and the toll imposed on both domestic and foreign salt passing through our canals, &c., which preclude the necessity of any recapitulation this year, as the rates of prices and the quantity made have not materially changed since that period.

TOTAL EXPORTS OF SALT FROM THE UNITED STATES DURING THE
YEAR 1860.

Bushels, 475,445.—Value, \$129,717.

It may be proper to remark in this connection, that there has been a gradual increase in the production of salt in those sections of the world having trade in that article with the United States since the year 1856, and a consequent reduction in the average rate of prices. The general supplies are now large, and gradually accumulating. The old tariff imposed by our government was 15 per cent. *ad valorem*. The present tariff fixes a specific duty on salt of 4 cents per bushel on *bulk salt*, and 6 cents per bushel on *sack salt*, which amounts to a considerable advance on the old rates; and even with this difference of tariff rates it is not likely that there will be any very serious check in the importations.

ANNUAL REPORT ON DRUGS FOR THE YEAR 1860.*By Wood & Nichols.*

At the commencement of the year a political excitement threatened to destroy the business that usually begins with the Southern buyers. Improvement, however, soon after took place, and trade continued good through the remainder of the season. Considerable fluctuation marked the revival; speculations were rampant, and in many articles higher prices were reached than had been known before in our market. The advance in freights—which, particularly at China and the East Indies, had been sudden and great—short supplies and an easy money market favoring speculative operations, were among the causes which contributed to the result. The business of the spring was as satisfactory as could reasonably have been expected. Anticipations of an enlarged western trade were in a great measure realized. Although not large, it was considered more healthy and promising than it had been for several years. Closing with the near-by trade, the usual quiet that attends the summer months succeeded. The political troubles in Italy stimulated many articles of her produce, some of which became scarce in the market, and purchases for future delivery were made freely at advanced rates. East India goods continued to command high prices, in consequence of the advancing rates of freights enhancing cost and checking shipments. China goods also appreciated, owing to the hostilities on her border.

Early in the summer, uneasiness was created among houses doing an exclusively Southern business, by unfavorable accounts from that section; there was a growing conviction that her ability to pay had been weakened by speculation, and that in consequence of free purchases for several seasons, her wants would not be large; not only was the hope of selling her merchants during the approaching season abandoned, but embarrassment was threatened to those who had urged the trade beyond its requirements and overstocked her markets upon easy credit. The principal business of the fall season was done with the West. The trade of this section since 1857 has been circumscribed by the slow process of recuperation, made necessary by the troubles into which she was plunged by the revulsions of that year. By retrenchment and careful purchases she has been steadily advancing to that position which her resources and energy entitle her; our merchants have been fretted by the delay, and each successive crop has been relied upon for the final liquidation of her indebtedness. The opportunity to burst the bonds that held her in distrust and prejudice finally came; a harvest of unparalleled magnificence was vouchsafed to her, and almost simultaneously a deficiency in the European crops was announced; an impulse was given to trade such as had not been felt before for years, but the improvement was short-lived; the development of extraordinary elements of prosperity was suddenly checked by a panic. The stagnation which succeeded and continued through the year contrasted painfully with the bustle and activity at the opening of the season.

In estimating the extent of the drug business in our market, there are

obstacles which prevent an accurate exhibit of the whole amount of transactions; many drugs imported into other cities are sold here, and besides what is sold out of town, direct by importing and commission houses, a portion of their business is engrossed in the jobbing trade. The whole amount of the latter, for 1860, we find to be \$9,185,000, a small increase over 1859.

Our jobbers do not confine themselves exclusively to the sale of drugs, and the above includes other business, such as paints, oils, fancy goods, &c. As the requirements of the toilet, of the nursery and many domestic wants growing out of a luxurious and progressing civilization, fall legitimately within the range of the pharmaceutical business, the jobbers are, to some extent, forced to deal in these articles. In the increase and development of the business, the combination of auxiliary trade is being gradually abandoned, and paints, oils, window glass, dye stuffs and fancy goods have grown to large and separate interests.

In the manufacture of chemicals we notice considerable growth, and abundant evidence is shown that this department is destined to reach a prominent position here. The principal articles manufactured are acids, sulph. ammonia, quinine, blue vitrol, preparations of soda, agricultural chemicals, photographic do., fine chemicals, &c. In consequence of the impurities in the foreign manufacture, our druggists are getting to distil their own oils, such as cloves, cummin, caraway, &c. Greater attention is being given to the purity and worth of drugs. The manufacture of pharmaceutical preparations is estimated at \$100,000.

The following articles were scarce during the year, and consequently commanded higher prices: Cardamon seeds, vanilla beans, cummin seed, balsam copaiba and tolu, cubebs, senna, argols, saffron, assafetida, nutgalls, Rochelle salts, cantharides, rhubarb and jalap. Tartaric and citric acids, to some extent, were controlled by speculative movements; cubebs held at extreme rates, and vanilla beans were almost entirely out of the market. A speculative movement advanced the price of liquorice paste to 34 cents; good brands were scarce. Owing to the Italian troubles almost all of the goods from that quarter have been in irregular supply at higher prices. Many of the essential oils appreciated under speculative prices. Owing to the reduced stock of Peruvian bark both in ours and the English markets, quinine has been in speculative demand throughout; at one time price was held at \$1 80, afterwards receded to \$1 25. Ginseng has been in good demand at higher prices. Calisaya bark, that was sold at 75 cents early in the year, afterwards brought \$1 10; varnish gums of all kinds have improved materially. Gum arabic was in better demand towards the last, and Rio ipecac has been scarce.

Alcohol.—Commenced the year at 62 cents, an extreme price created by a reduced stock of whiskey, with an export movement in breadstuffs. Receipts were large in February, and market receded to 48, with a moderate demand, and continued with slight fluctuations through March. A further decline commenced next month and continued until September, when it had reached 40 cents. The grain movement stimulated prices, and sales were made at 47. It gradually fell off at the close; during the last month was very irregular from 35 to 40; closing in good demand at 37 cents.

Ashes.—Pot have been in moderate demand throughout the year at

remarkably uniform prices, averaging but a fraction under \$5 25. Last year's average price was \$5 46. Pearl have been in fair demand, but receipts have been irregular and prices have, in consequence, fluctuated, averaging for the year \$5 54. Last year it was \$5 75.

STOCK OF ASHES JANUARY 1, 1861.

	Pot.		Pearl.		Total.
First sort, ...	346	....	167	....	513
Second sort, ...	85	....	6	....	91
Third sort, ...	16	....	1	....	17
Condemned, ...	7	....	..	....	7
Total, ...	454	....	174	....	628

RECEIPTS OF ASHES FROM JANUARY 1, 1857, TO DECEMBER 31, 1860.

	Pot.		Pearl.		Total.
1857,.....bbls.	17,590	....	6,603	....	24,193
1858,....."	18,258	....	4,445	....	22,703
1859,....."	19,741	....	4,960	....	24,701
1860,....."	18,327	....	6,238	....	28,565

Beeswax commenced at 38, with a scarcity and fair demand; as supply increased price fell off to 34 cents, but afterwards recovered in consequence of smaller receipts. A good demand carried prices to 37 cents. Shipments had been large and stock had accumulated abroad, and as demand fell off, market again yielded, and continued at about 35 cents until the close, when, in consequence of the panic, was sold at 30 cents, with a fair demand at this rate; average price for the year, 35½ cents; for the previous year, 36 cents.

Bi-Carb. Soda has for the most part been depressed. A speculative movement, early in the season, embracing about 40,000 kegs, caught the market at \$3 75 and carried it to \$4 25; heavy arrivals afterwards weakened the market and price gave way. Early in the fall another movement resulted in carrying prices from \$3 35 to \$3 95, but market was again depressed by heavy importations and price fell off to \$3 62½. During the last month it was dull, and nominal sales for cash were made at 2½ cents; average price for the year, 3½ cents; previous year, 4½ cents.

IMPORTS OF CHEMICALS FOR THE YEARS 1859 AND 1860.

	1859.		1860.
Soda ash,.....	35,094 casks.	....	29,128 casks.
Value,.....	\$ 922,519	....	\$ 792,974
Sal soda,.....	32,213 casks.	....	22,803 casks.
Value,.....	\$ 279,881	....	\$ 160,229
Bi-carb. soda,.....	113,883 kegs.	....	126,712 kegs.
Value,.....	\$ 480,204	....	\$ 441,593

Camphor.—The reports of a short supply in the producing districts, and small stocks here and in London, induced a strong speculative feeling, which resulted in carrying the price up to 60 cents, but this inflated value was rapidly reduced by subsequent reports of better supply. The market rallied at 35 cents, and prices rose to 45 cents, where it remained for the most part until the close. Last sales were made at 40 cents; average price for the year, 42 cents.

Castor Oil.—The year opened with a dull market at \$1 02½; supply ample and demand small. The advance in freights, at Calcutta, soon after stiffened the market; price advanced to \$1 10 and was supported through the spring. As stock accumulated and demand subsided, price declined to \$1. A movement was started at this point, and price was carried to \$1 20, and was for a time sustained by a few operators who held the principal stock. The trade bought sparingly, and gradual concessions brought the price back to \$1, at which it closed, except for small parcels; average price for the year, \$1 08½; in 1859, \$1 25.

Imports of castor oil from Calcutta into the United States for the year ending December 31, 1860, 7,176 cases, or 143,520 galls. In 1859, 8,846 cases, or 176,920 galls., showing a decrease in 1860 of 1,670 cases, or 33,400 galls. Besides the imports of oil, about 40,000 galls. have been crushed from Calcutta beans by one of our manufacturers. We estimate the year's supply, from all sources except the West, including stock in speculators' hands January 1, 1860, at 222,000 galls. Stock on hand January 1, 1861, Boston and New-York, East India, 3,500 cases; same time in 1860, 1,500 cases. The last crop of beans at the West was better than for two years previous.

Cream Tartar.—This article has been a favorite with speculators for the last two years. Commencing at 31 cents early in the year, it was carried to 38 cents under operations based upon a small stock and advance of price abroad. Increased shipments afterwards resulted in lower prices, and a gradual falling off succeeded until the close. The impression became general that the supply of this article would be greater in consequence of the extreme prices. Buyers held off and market yielded; sales were made at 30½ early in the autumn. Holders said the price was below the cost of importation, and a speculative movement left the market firm at 32½. During the last month some concession was made; average price for the year, 34 cents; in 1859, 29½ cents.

Indigo.—Market was but moderately supplied, particularly with East India descriptions, and prices were well sustained for all kinds; demand fair, and for very good grades large prices were obtained. Central American descriptions have been scarce.

ESTIMATED STOCK IN 1ST AND 2D HANDS JANUARY 1ST, 1861.

Manilla,.....	700 cases.	Guatemala,.....	120 ceroons.
Other East India,.....	140 chests.	Caraccas,.....	3 "
In 1860, Manilla,.....			400 cases.

Imports from Calcutta, as follows :

	1859. Chests.		1860. Chests.
At Boston,.....	1,499	....	1,107
At New-York,.....	261	....	367
At Philadelphia,.....	102	....	167

Oils.—A gradual improvement in Linseed carried the price from 57 to 62½ cents in the spring; supply increased and price fell off to 57; demand continued fair, market recovered, and maintained a pretty firm tone for a while at 60 cents. In the summer, demand subsided and the market gradually declined. During the last month it was offered at 48 cents. Average price for the year, 58 cents; in 1859, 62 cents.

Opium.—A decline at the commencement of the year was intercepted by speculative purchases based upon the limited supply, and price improved from \$5 75 to \$6. As stock became still more reduced, price rapidly advanced to \$7 50. As trade diminished, market yielded. As usual in the summer, jobbers demanded a concession in view of the receipt of a new crop early in the fall. About ten cases were sold at \$5 50, but stock having been reduced to about thirty cases, market rallied, and price rose to \$6; buyers continued to hold off and holders conceded. The first lot of the new crop arrived early in September, but not coming in as freely as was expected, after reaching \$5 25, an improved demand stimulated holders, and price was again carried to \$6. As demand subsided, market fell, and last sales were made at \$5 25. Average price for the year, \$6 08; in 1859, \$6 43.

Stock on hand in New-York January 1st, 1860,.....	65 cases.
Imports to December 31st, 1860,.....	797 "
	862 "
Stock in New-York January 1st, 1861,.....	122 "
	740 "
Taken for consumption,.....	
Stock in Boston January 1st, 1861,.....	60 cases.
	182 "

Amount and value of opium imported from June 1st, 1859, to June 1st, 1860 :

FROM TURKISH PORTS.

555 cases.		84,516 lbs.		\$ 435,520
------------	-------	-------------	-------	------------

FROM ENGLISH PORTS.

92 cases.		12,962 lbs.		\$ 68,396
-----------	-------	-------------	-------	-----------

Saltpetre.—In consequence of advices from Calcutta reporting a contemplated increase of the export duty on this article, a speculative movement was started, and prices advanced from 8½ early in the year, and, with a market almost bare of good qualities, was carried to 10 @ 10½ cents. The rapid advance in freights at Calcutta, and consequent prospective short supply, induced manufacturers to buy freely both on the spot and to arrive. Appreciation followed, and although shipments improved, prices were well sustained by the unusually limited supply and the greatly enhanced cost to import. Good qualities became scarce, and several lots were brought out from England which sold at 11 @ 11½; some choice lots on the spot brought 11½. In view of larger receipts in the autumn, holders to arrive evinced some anxiety to sell, and some concessions being made, manufacturers again came forward and took all the lots afloat for this market from Calcutta, England and Hamburg, at 10½ @ 11 cents. Appreciation succeeded, and good parcels sold in a small way at 11½ @ 12 cents. As stock accumulated later in the season, with no buyers, depreciation followed, and the market closed nominally at 9½ @ 10 cents.

							<i>Bags.</i>
Stock on hand January 1st, 1860,.....							8,670
ARRIVALS FROM JANUARY 1ST, 1860, TO JANUARY 1ST, 1861.							
	<i>Boston.</i>	<i>New-York.</i>	<i>Philadelphia.</i>				
From Calcutta,.....	61,761	17,166	6,094	..	85,021		
From England,.....	1,907	2,232	800	..	4,939		
From Hamburg,.....	..	677	..	..	677		
From Bombay,.....	..	425	..	..	425		
							91,063
Export,.....							99,732
							763
							98,970
	<i>Boston.</i>	<i>New-York.</i>	<i>Philadelphia.</i>				
Stock on hand January 1st, 1861,....	10,970	8,481	1,800	..	16,251		
Taken for consumption in 1860,.....					82,719		
“ “ 1859,.....					104,044		
Stock afloat for Boston,.....					25,304		
Loading November 8, for Boston,.....					1,755		
							27,059
Afloat for New-York,.....					8,106		
Loading for New-York,.....					1,818		
							4,924
Afloat for Philadelphia,.....					3,861		
Total afloat and loading for the United States,.....					35,844		

RANGE OF PRICES.											
	1859.			1860.			1859.			1860.	
January,....	7½ @	8½	..	8½ @	8½	July,.....	10½ @	8½	..	11 @	11½
February,...	7½ @	8½	..	9 @	9½	August,....	7½ @	7½	..	11 @	11½
March,.....	8½ @	8½	..	9½ @	10	September,...	7½ @	8½	..	10½ @	11
April,.....	8½ @	8½	..	10½ @	11	October,....	7½ @	8½	..	11 @	11½
May,.....	10½ @	11½	..	10½ @	10½	November,...	8 @	8½	..	10½ @	11
June,.....	10½ @	11½	..	10½ @	11	December,...	8½ @	8½	..	10 @	10½
Average price, 1859,.....										9 c.	
“ “ 1860,.....										10½ c.	

COMPARATIVE IMPORTS.

From January 1, 1859, to January 1, 1860,.....	103,594
From January 1, 1860, to January 1, 1861,.....	91,062

Showing a falling off in 1860 of..... 12,532

STATEMENT OF DRUGS IMPORTED FROM ALL CHINA FOR THE LAST TEN YEARS.

YEAR ENDING JULY 1.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.
Camphor,....piculs,	781	904	858	1,491	1,140	562	750	..	..	..
Cassia Lignea, “	..*	..*	9,608	11,415	2,770	5,050	4,195	7,072	1,172	10,829
“ buds,....boxes,	110	78	282	525	10	294	..	115	185	193
“ oil,....cases,	188	143	116	225	47	117	..	21	209	151
Anise oil,.... “	150	348	254	118	36	207	214	124	860	150
Rhubarb,....piculs,	..	..	220	368	82	587	93	746	589	479
Vermilion,....boxes,	..*	..*	150	310	125	230	65	161	150	284
Star aniseed,.. “	..*	..*	..*	..*	..*	15	..	200	71	46

* Not collated.

**IMPORTATIONS OF DRUGS AT THE PORT OF NEW-YORK DURING THE YEAR ENDING
DECEMBER 31, 1860.**

Acids,.....	\$285,507	Lac dye,.....	\$31,610
Argols,.....	54,967	Liquorice root,.....	67,567
Alum,.....	35,168	" paste,.....	488,780
Alum cake,.....	6,214	Madder,.....	1,889,054
Ammonia,.....	31,791	Magnesia,.....	27,497
Antim. regulus,.....	48,005	Manna,.....	3,751
Arsenic,.....	3,977	Nitrate soda,.....	14,662
Arrow root,.....	7,717	Nutgalls,.....	2,402
Annatto,.....	2,055	Oils, essential,.....	81,244
Barytes,.....	27,677	Oil, cod liver,.....	18,812
Bi. carb. soda,.....	441,593	" linseed,.....	291,973
Bleaching powder,.....	235,217	" olive,.....	263,245
Borax,.....	27,762	" palm,.....	65,893
Brimstone,.....	130,257	" divers,.....	105,651
Castor oil,.....	40,041	Opium,.....	439,682
Chicory,.....	359,032	Peruvian bark,.....	211,008
Cochineal,.....	142,948	Phosphorus,.....	27,052
Cream tartar,.....	298,093	Paints,.....	826,505
Cudbear,.....	34,959	Paris white,.....	2,163
Crude gum,.....	76,670	Prussiate potash,.....	20,852
Cutch,.....	48,874	Quicksilver,.....	28,319
Cantharides,.....	701	Quinine,.....	1,496
Carmines,.....	3,108	Rhubarb,.....	19,395
Chalk,.....	18,478	Saltpetre,.....	267,460
Chloride lime,.....	8,023	Sal soda,.....	160,229
Flor. sulphur,.....	6,797	Shellac,.....	54,843
Gambier,.....	122,218	Soda ash,.....	792,974
Gum arabic,.....	88,234	Sumac,.....	30,150
" copal,.....	20,525	Sponges,.....	62,644
" copaiva,.....	92,806	Sugar lead,.....	70,614
Garacino,.....	2,157	Sarsaparilla,.....	67,462
Glue,.....	18,645	Sal ammoniac,.....	23,309
Gypsum,.....	7,683	Tongva beans,.....	3,026
Iodide potassium,.....	61,202	Vanilla beans,.....	10,334
Extract safflower,.....	5,819	Vermilion,.....	48,984
" Lima wood,.....	12,971	Whiting,.....	5,768
Iodine,.....	12,781	Yellow ochre,.....	16,967
Ipecacuanha,.....	7,326	Divers,.....	239,661
Indigo,.....	505,923		
Jalap,.....	2,249	Totals,.....	\$10,066,166
Leeches,.....	7,739		

**EXPORTS OF DRUGS AND MEDICINES FROM THE SEVERAL PORTS OF THE UNITED STATES,
DURING THE FISCAL YEAR ENDING JUNE 30, 1860.—(Official.)**

<i>Ports.</i>	<i>Amount.</i>	<i>Ports.</i>	<i>Amount.</i>
New-York,.....	\$892,809	New-Bedford,.....	\$2,018
Boston,.....	72,570	Oswegatchie,.....	1,935
San Francisco,.....	39,246	Vermont,.....	1,609
Champlain,.....	31,135	Niagara,.....	1,607
Philadelphia,.....	29,930	Genesee,.....	1,357
Passamaquoddy,.....	13,992		
Oswego,.....	9,853	Total 15 ports,.....	\$1,113,649
Buffalo,.....	6,732	Total all other,.....	1,306
New-Orleans,.....	6,694		
Baltimore,.....	2,112	Total United States,.....	\$1,115,455

BREADSTUFFS AND PROVISIONS.

Exhibit of the aggregate value of Breadstuffs exported to foreign countries from the United States, for each year, 1828, to 1st July, 1860; also the export value of Provisions for the same period.

	<i>Export value of Breadstuffs.</i>		<i>Export value of Provisions.</i>		<i>Aggregate of Breadstuffs and Prov.</i>
1828,.....	\$ 5,414,665	....	\$ 6,046,479	....	\$ 11,461,444
1829,.....	7,149,365	....	5,982,503	....	13,131,858
1830,.....	7,071,767✓	....	5,003,663✓	....	12,075,430✓
1831,.....	11,908,910	....	5,629,317	....	17,538,227
1832,.....	6,142,472	....	6,282,231	....	12,424,703
1833,.....	7,009,556	....	7,199,572	....	14,209,128
1834,.....	5,677,341	....	5,846,683	....	11,524,024
1835,.....	6,111,164✓	....	5,988,235✓	....	12,009,399✓
1836,.....	4,799,141	....	5,814,989	....	10,614,130
1837,.....	4,416,643	....	5,171,716	....	9,588,359
1838,.....	4,944,826	....	4,691,824	....	9,636,650
1839,.....	8,436,246	....	5,711,533	....	14,147,779
1840,.....	13,535,926✓	....	5,531,609✓	....	19,067,535✓
1841,.....	10,254,377	....	6,941,725	....	17,196,102
1842,.....	9,878,176	....	7,024,700	....	16,902,876
1843,.....	5,249,600	....	5,954,523	....	11,204,123
1844,.....	8,931,396	....	9,033,739	....	17,970,135
1845,.....	7,445,820✓	....	9,297,601✓	....	16,743,421✓
1846,.....	16,625,407	....	11,075,714	....	27,701,121
1847,.....	53,262,437	....	15,439,484	....	68,701,921
1848,.....	22,678,602	....	14,794,149	....	37,472,751
1849,.....	22,895,783	....	15,259,724	....	38,155,507
1850,.....	13,066,509✓	....	12,984,864✓	....	26,051,373✓
1851,.....	14,556,236	....	7,392,415	....	21,948,651
1852,.....	17,256,803	....	8,600,224	....	25,857,027
1853,.....	21,875,878	....	11,109,444	....	32,985,322
1854,.....	48,383,107	....	17,558,216	....	65,941,323
1855,.....	21,557,854✓	....	17,387,494✓	....	38,945,348✓
1856,.....	56,619,986	....	20,567,315	....	77,187,301
1857,.....	55,624,832✓	....	19,043,020✓	....	74,667,852✓
1858,.....	33,698,490	....	16,984,795	....	50,683,285
1859,.....	24,893,413	....	13,412,578	....	38,305,991
1860,.....	27,590,298✓	....	17,681,552✓	....	45,271,850✓

The following tabular statement of exports for the year ending 1st September, 1860, is from the Flour and Grain Circular of Mr. EDWARD BILL, of New-York:

EXPORT OF BREADSTUFFS TO GREAT BRITAIN AND IRELAND, FROM SEPTEMBER 1st, 1859, TO SEPTEMBER 1, 1860.

FROM—	Bbls. Flour.	Bbls. Corn Meal.	Bushels Wheat.	Bushels Corn.
New-York, one year, to Sept. 1, 1860,	616,166	826	4,576,223	1,724,935
New-Orleans, " " " "	6,333	6	....	126,061
Philadelphia, " " " "	65,501	....	247,161	243,209
Baltimore, " " " "	2,277	112	106,403	126,602
Boston, " " " "	26,829	....	....	1,050
Other ports, " " " "	50	....	8,922	....

EXPORTS OF BREADSTUFFS TO GREAT BRITAIN AND IRELAND.—(Continued.)

FROM—	Bbbs. Flour.	Bbbs. Corn Meal.	Bushels Wheat.	Bushels Corn.
Sept. 1, 1859, to Sept. 1, 1860,.....	717,156	944	4,938,714	2,221,857
Sept. 1, 1858, to Sept. 1, 1859,.....	106,457	58	439,010	342,013
Sept. 1, 1857, to Sept. 1, 1858,.....	1,295,430	143	6,555,643	3,317,802
Sept. 1, 1856, to Sept. 1, 1857,.....	849,600	685	7,479,401	4,746,278
Sept. 1, 1855, to Sept. 1, 1856,.....	1,641,265	6,816	7,956,406	6,731,161
Sept. 1, 1854, to Sept. 1, 1855,.....	175,209	4,768	324,427	6,679,138
Sept. 1, 1853, to Sept. 1, 1854,.....	1,846,920	41,726	6,038,003	6,049,371
Sept. 1, 1852, to Sept. 1, 1853,.....	1,600,449	100	4,823,519	1,425,278
Sept. 1, 1851, to Sept. 1, 1852,.....	1,427,442	1,680	2,728,442	1,487,398
Sept. 1, 1850, to Sept. 1, 1851,.....	1,559,584	5,620	1,496,355	2,205,601
Sept. 1, 1849, to Sept. 1, 1850,.....	574,757	6,411	461,276	4,753,358
Sept. 1, 1848, to Sept. 1, 1849,.....	1,137,556	82,900	1,140,194	12,685,260
Sept. 1, 1847, to Sept. 1, 1848,.....	182,583	103,534	241,309	4,390,226
Sept. 1, 1846, to Sept. 1, 1847,.....	3,155,845	844,187	4,000,359	17,157,659
Total for 14 years,.....	16,270,253	1,104,572	48,623,058	74,192,400
From New-York, 1st to 7th Sept., 1860,	16,295	....	179,159	30,484

To the Continent, from New-York and other Ports.	Barrels Flour.	Bushels Wheat.	Bushels Corn.	Bushels Rye.
Sept. 1, 1859, to Sept. 1, 1860,.....	49,243	178,031	19,358	....
Sept. 1, 1858, to Sept. 1, 1859,.....	51,888	57,845	25,519	....
Sept. 1, 1857, to Sept. 1, 1858,.....	303,100	390,428	16,848	13,100
Sept. 1, 1856, to Sept. 1, 1857,.....	483,344	2,875,653	543,590	216,162
Sept. 1, 1855, to Sept. 1, 1856,.....	748,408	2,610,079	232,083	1,975,178
Sept. 1, 1854, to Sept. 1, 1855,.....	7,763	4,972	308,428	35,669
Total for 6 years,.....	1,643,246	6,117,008	1,195,826	2,240,009

TOTAL FOREIGN EXPORT FOR THE YEAR, TO SEPTEMBER 1, 1860.

To—	Barrels Flour.	Barrels Corn Meal.	Bushels Wheat.	Bushels Corn.
Great Britain,.....	717,156	944	4,938,714	2,221,857
The Continent,.....	49,243	...	178,031	19,358
Total for the year,.....	766,399	944	5,116,745	2,241,215
From Sept. 1, 1860, to Jan. 1, 1861:—				
Great Britain,.....	1,058,678	2,474	11,928,139	2,509,901
The Continent,.....	27,511	...	248,773	17,340
Total, 4 months,.....	1,086,184	2,474	12,176,912	2,527,241
1 year, to Sept. 1,.....	766,399	944	5,116,745	2,241,215
Total, 16 months,.....	1,852,583	3,418	17,293,657	4,768,456

RATES OF FREIGHT, YEAR 1860.

RATES OF FREIGHT FROM NEW-YORK TO LIVERPOOL, FROM JANUARY TO DECEMBER, 1860, BOTH INCLUSIVE.

<i>First week in</i>	BACON. <i>Per ton. Sterling.</i>	PORK. <i>Per bbl. Sterling.</i>	ROBIN. <i>Per bbl. Sterling.</i>	COTTON. <i>Per lb. Sterling.</i>	BARK. <i>Per tierce. Sterling.</i>			
January,.....	£ 1 0s. 0d	..	..	2s. 3d	..	7-32d	..	3s. 9d
February,.....	1 0 0	..	..	2 6	..	7-32	..	3 6
March, ...	1 2 6	..	..	2 6	..	1-4	..	3 9
April,.....	1 0 0	..	3s. 0d	2 3	..	1-4	..	3 6
May, ...	1 0 0	..	2 6	2 3	..	1-4	..	3 9
June,.....	....	..	..	2 0	..	1-8	..	4 0
July,.....	....	..	..	....	..	1-8	..	4 0
August,.....	....	..	..	....	..	8-16	..	....
September,.....	....	..	..	....	..	8-16	..	....
October,.....	....	..	..	....	..	7-32	..	....
November,.....	....	..	..	3 6	..	1-4	..	....
December,.....	1 17 6	..	4 6	3 6	..	9-32	..	7 6

	SPERM OIL. Per tun, 252 gls. Sterling.		GRAIN. Per bush. Sterling.		FLOUR. Per bbl. Sterling.		LARD. Per ton. Sterling.		TAR. Per bbl. Sterling.		SPIRITS. TURPENTINE. Per bbl. Sterling.		
First week in	£	s. d.	..	d.	..	s. d.	..	£	s. d.	..	s. d.	..	s. d.
January, ...	£ 1	2s. 6d	..	5d.	..	1s. 9d	..	£ 1	0s. 0d	..	2s. 3d	..	5s. 0d
February,....	....	..	..	5½	..	....	..	1	2 6	..	....	..	4 6
March,.....	1	5 0	..	5½	..	2 3	..	1	5 0	..	....	..	5 3
April,.....	1	7 6	..	5½	..	....	..	1	3 0	..	....	..	....
May,.....	1	2 6	..	6	..	2 0	..	1	0 0	..	....	..	....
June,.....	1	5 0	..	8	..	....	..	....	..	..	2 9	..	7 0
July,.....	1	5 0	..	7½	..	1 9	..	....	..	..	....	..	....
August,.....	1	5 0	..	8	..	2 3	..	....	..	..	....	..	7 0
September, ..	....	..	..	10½	..	3 0	..	....	..	..	....	..	7 0
October, . . .	1	15 0	..	12	..	3 3	..	....	..	..	....	..	....
November, ..	1	15 0	..	12	..	3 3	..	....	..	..	....	..	....
December,...	....	..	..	13½	..	3 9	..	....	..	..	....	..	....

RATES OF FREIGHT FROM NEW-YORK TO LONDON, FROM JANUARY TO DECEMBER, 1860, BOTH INCLUSIVE.

	FLOUR.	OIL CAKE.	NAVAL STORES.		BACON.
	Per bbl.	Per ton.	(Rosin and Turpentine.)		Per ton.
First week in	Sterling.	Sterling.	Per bbl. of 230 lbs.		Sterling.
			Sterling.		
January,.....	2s. 6d	.. 20s. @ 25s. 0d	.. 3s. 0d	..	22s. 6d @ 25s.
February,....	2 6	.. 25 0	.. 3 0	..	20 0
March,.....	2 3	.. 25 0	.. 3 0	..	....
April,.....	2 0	.. 20 0	.. 2 6 @ 2 10	..	25 0
May,.....	2 3	.. 20 0	.. 2 6	..	22 6 @ 25
June,.....	2 1½	.. 20 0	.. 2 7½	..	25 0
July,.....	2 6	.. ....	.. 3 0	..	....
August,.....	2 9	.. 25 @ 27 6	.. ....	..	....
September, ..	3 6 @ 3 9	.. 35 0	.. 4 0	..	....
October,.....	4 0	.. 35 0	.. 3 9	..	....
November,...	3 9	.. 35 0	.. ....	..	....
December,...	3 9 @ 4 0	.. ....	.. ....	..	....

RATES OF FREIGHT FROM NEW-YORK TO HAVRE, (ON FOUR LEADING ARTICLES,) FROM JANUARY TO DECEMBER, 1860, FOR THE FIRST WEEK IN THE MONTH, BOTH INCLUSIVE.

First week in	COTTON. Per lb.	ASHES. Per ton. Pots and Pearl.	RICE. Per ton. Net weight.	QUERCITRON. Per ton.
January, 1860,....	$\frac{1}{2}$ ct.	\$ 9 @ \$11	\$ 10	\$ 10
February, "	$\frac{1}{2}$ "	9 @ 11	10	10
March, "	$\frac{1}{2}$ "	9 @ 11	10	10
April, "	$\frac{1}{2}$ "	8 @ 10	8	10
May, "	$\frac{1}{2}$ "	8 @ 10	8	10
June, "	$\frac{1}{2}$ "	8 @ 10	8	10
July, "	$\frac{1}{2}$ "	8 @ 10	8	10
August, "	$\frac{1}{2}$ "	8 @ 10	8	10
September, "	$\frac{1}{2}$ "	8 @ 10	8	10
October, "	$\frac{1}{2}$ "	10 @ 12	12	10
November, "	$\frac{1}{2}$ "	10 @ 12	12	10
December, "	1 "	10 @ 12	12	10

RATES OF FREIGHT FROM NEW-YORK TO GALVESTON, FROM JANUARY TO DECEMBER, 1860.

First week in	Gen. Merchandise, per cubic foot.	First week in	Gen. Merchandise, per cubic foot.
January,.....	7 cts.	July,.....	7 cts.
February,.....	7 "	August,.....	7 "
March,.....	7 "	September,.....	7 "
April,.....	7 "	October,.....	7 "
May,.....	7 "	November,.....	7 "
June,.....	7 "	December,.....	7 "

RATES OF FREIGHT FROM NEW-YORK TO HAVANA, FROM JANUARY TO DECEMBER, 1860, BOTH INCLUSIVE.

Machinery under deck,.....	\$ 6 00 @	\$ 8 00 per ton.
Hoop iron,.....	6 00 @	" "
Paving stones,.....	1 50 @	3 00 "
Bricks,.....	10 00 @	14 00 per M.
Plaster or cement,.....	40 @	62½ per bbl.
Potatoes, apples, onions,.....	50 @	75 "
Ale,.....	62 @	87 "
Oil, (per bbl. of 32 gallons,).....	62 @	75 "
Spirits of turpentine,.....	75 @	1 00 "
Carboys of acid on deck,.....	1 50 @	2 00 "
Hoops,.....	6 00 @	8 00 per M.
Sugar, molasses, shoofs with heads,.....	25 @	87 "
Paper, straw,.....	2 @	3 per ream.
Measurement goods,.....	8 @	15 pr. cubic foot.

For the comparative rates of freight for the year 1859, see Chamber of Commerce Report, pp. 21-22.

RATES OF FREIGHT FROM NEW-YORK TO VERA CRUZ, FROM JANUARY TO DECEMBER, 1860, BOTH INCLUSIVE.

One uniform rate the year round.

Cocoa,.....	1 ct. per lb.
Machinery,.....	30 cts. per cubic foot.
Hardware,.....	30 " "
Straw-paper,.....	10 cts. per ream.
Cinnamon,.....	30 cts. per cubic foot.
Cloves,.....	30 " "

THE TEA TRADE FOR THE YEAR 1860.

GREEN teas opened at rather low rates, early in 1860, and ruled without change to the 15th February, 1860.

From that date ordinary and medium grades began to advance, the upward movement continuing to the first of September, at which time the rise in prices of common qualities *Hyson*, were equal to 30 per cent.; *Young Hyson*, *Hyson Skin* and *Twankay*, 50 per cent., and *Gunpowder* and *Imperial*, 25 per cent. upon the opening rates. Good and fine grades participated in the advance 10 to 15 per cent., while the choice varieties (of which the season's import contained an unusually large proportion) remained without material change. From September 1st to the end of the year (the last two months of which were marked by more than ordinary dullness in the tea trade) no material change in prices occurred, except a decline in the fine grades of 7 to 10 per cent.

Blacks opened at about the average rates of the last ten years, and prices continued without alteration to the 1st of March.

From that date to the 1st July the market for common and fair grades gradually improved, until an advance on the opening rates was realized of 15 to 20 per cent. on *Oolong*, *Ankoi* and *Orange Pecco*, 20 to 30 per cent. on *Souchong* and *Congou*, and 10 to 20 per cent. on the various kinds of *Powchongs*.

From July to the end of the year the tendency of prices was to a lower scale, the market finally closing at about the opening prices, except for *Souchong* and *Congou*, the common qualities of which were still quoted about 20 per cent. above.

STATISTICS OF THE TEA TRADE—IMPORTS INTO THE UNITED STATES FOR THE CALENDAR YEAR 1860.

	<i>Greens.</i> lbs.	<i>Blacks.</i> lbs.	<i>Japan.</i> lbs.	<i>Total.</i> lbs.
Estimated stock, January 1st, 1860,.....	1,689,520 ..	8,807,818 ..	.....	5,417,593
Receipts from January 1st to Dec. 31, 1860,....	17,023,920 ..	15,575,608 ..	865,806 ..	32,964,829
	18,663,440 ..	19,883,421 ..	865,806 ..	38,412,167
Estimated stock, December 31, 1860,.....	2,365,000 ..	5,584,582 ..	50,000 ..	8,249,532
Apparent consumption,.....	16,298,440 ..	13,548,599 ..	315,806 ..	30,162,845

EXPORTS OF DOMESTIC GOODS TO FOREIGN PORTS FROM NEW-YORK FOR ELEVEN YEARS.

<i>Years.</i>	<i>Pkgs.</i>	<i>Years.</i>	<i>Pkgs.</i>
1850,.....	24,412	1856,.....	27,666
1851,.....	41,820	1857,.....	25,972
1852,.....	60,496	1858,.....	47,796
1853,.....	40,468	1859,.....	51,848
1854,.....	17,784	1860,.....	54,461
1855,.....	12,834		

EXPORTS OF TEAS FROM THE SEVERAL PORTS OF THE UNITED STATES DURING THE FISCAL
YEAR ENDING JUNE 30, 1860. (Official.)

Ports.	Pounds.	Value.
New-York,.....	2,008,241	\$ 604,344
Niagara,.....	1,174,149	579 816
Boston,.....	676,640	208,750
Champlain,.....	497,912	183,474
Oswego,.....	258,749	126,141
San Francisco,.....	240,756	61,847
Passamaquoddy,.....	117,531	36,348
Buffalo,.....	116,414	73,245
Philadelphia,.....	56,884	26,855
Baltimore,.....	61,470	24,245
Richmond,.....	47,930	24,178
Oswegatchie,.....	68,967	20,710
Total 12 ports,.....	5,325,643	\$ 1,969,953
Total all other,.....	39,821	13,840
Total United States,.....	5,365,464	\$ 1,983,793

IMPORTS OF TEAS INTO THE SEVERAL PORTS OF THE UNITED STATES DURING THE FISCAL
YEAR ENDING JUNE 30, 1860. (Official.)

Ports.	Pounds.	Value.
New-York,.....	28,387,743	\$ 8,270,901
San Francisco,.....	1,350,362	345,810
Boston,.....	854,547	186,915
All other ports,.....	454	145
Total United States,.....	30,593,106	\$ 8,803,771

OPERATIONS OF THE U. S. ASSAY OFFICE, NEW-YORK,

FOR THE YEAR 1860—1861.

	BULLION DEPOSITS.		SILVER PARTED FROM GOLD.		BARS.
	Gold.	Silver.	For Depositors.	Office. For Assay.	Returned for Coins.
1860. 1st quar.,	\$ 3,816,775 86 ..	\$ 93,473 99 ..	\$ 29,652 99 ..	\$ 155 82	\$ 155,125 63
2d "	608,958 51 ..	114,878 17 ..	6,384 62 ..	35 51	115,612 78
3d "	697,936 59 ..	111,338 90 ..	8,392 99 ..	45 10	.....
4th "	11,818,605 61 ..	216,471 84 ..	62,877 75 ..	89 39	42,782 80
	*\$ 16,942,271 57	\$ 536,162 90	\$ 107,308 35	\$ 325 82	\$ 313,521 21
1861. 1st quar.,*	\$ 17,882,426 72 ..	\$ 452,118 14 ..	\$ 70,275 05 ..	\$ 322 29	.....
	FINE GOLD BARS.		FINE BARS MADE BY MELTER AND REFINER.		BULLION SENT TO THE MINT FOR COINAGE.
	Paid Depositors.	Gold.	Silver.	Gold.	Silver.
1860. 1st quar.,	\$ 696,085 31	\$ 4,195,423 32	\$ 32,602 27	\$ 2,746,002 25	\$ 63,569 09
2d "	437,209 54 ..	678,760 78 ..	67,504 24 ..	222,479 50 ..	77,694 38
3d "	519,755 88 ..	636,713 13 ..	37,854 35 ..	113,541 47 ..	29,945 50
4th "	318,871 44 ..	5,765,521 57 ..	115,781 02 ..	8,772,811 30 ..	101,987 64
	\$ 1,971,921 67	\$ 11,276,418 80	\$ 253,741 88	\$ 11,854,834 52	\$ 278,196 61
1861. 1st quar.,	\$ 169,093 65	\$ 8,376,174 74	\$ 50,317 62	\$ 19,484,603 06	\$ 496,829 85

*\$15,150,000 of the above gold deposits, in foreign coins, such as Sovereigns, Napoleons, Thalers, &c.
VOL. XLV.—NO. III.

COMMERCIAL REGULATIONS.

DUTIES LEVIED IN SCINDE.

FROM the monthly circular of Messrs. FARNHAM & Co., dated Kurrachee, May 8th, 1861, we learn that the duties now levied in Scinde (or Sind) are as follows:

New Import Duties.—Cotton thread, twist and yarn, piece goods, haberdashery, hosiery and millinery, oilman's stores, provisions of all kinds, perfumery, spices of all kinds, tea and coffee, jewelry, plated and plated ware, and all articles not enumerated below, pay 10 per cent.

Tobacco, eight annas per seer (2 lbs.) on unmanufactured, and one rupee per seer on manufactured. American tobacco comes under the head of manufactured.

Ale, beer, porter, cider and other similar fermented liquors, 4 annas; wines and liquors, rupees 2; and spirits, rupees 3—per imperial gallon.

Bullion and coin, pearls and precious stones, unset, grain of all kinds, horses and other live animals, ice, cotton, wool, flax, hemp, jute, machinery, chalk, coal, coke, bricks, maps, prints, works of art and hides, free.

New Export Duties.—Saltpetre two rupees per Indian maund (82 lbs.); indigo, three rupees per Indian maund; grain and pulse of all kinds, four annas per bag of 164 lbs.; lac dye and shellac, four per cent.

Bullion, precious stones and pearls, books, maps, prints and works of art, horses and other live animals, cotton, wool, flax, hemp, jute, sugar, rum and spirits, tobacco, raw silk, opium, under a permit, free.

All articles of export not enumerated above pay three per cent.

[Kurrachee, or Karachee, is the principal seaport town of Scinde, on an inlet of the Indian Ocean, eighteen miles from the west branch of the Indus. Latitude 23° 47' 3" N. The harbor is the only port along this coast for vessels drawing more than ten feet of water.]

American Imports—Drills.—We are without stock, and there are none on the way. We have constant inquiries for boot and Laconia marks—latter preferred. Shirtings, sheetings, blue drills, cotton flannel, &c., are in constant demand for small quantities.

Tobacco.—Just at present the market is rather quiet, 14 annas 6 pies to 15 annas per lb. for good quality half pound lumps, and 11 annas to 11 annas 6 pies for 10s. of good quality are fair quotations.

There is a great deal of inferior tobacco in the Bombay market. Some of this description of tobacco has found its way into this market, and we would suggest to the parties in America who contemplate trying the Kurrachee market that it will be for their interest to confine their shipments to the very best marks. Mould in tobacco is very detrimental.

THE COOLIE TRAFFIC.

The following letter from Paris purports to describe the views of the French government as to the results to be obtained from the clause of the treaty with China legalizing the exportation of labor. It is not known if the writer speaks from authority, and if his extremely sanguine anticipations and inferences are shared in official quarters :

"It will be seen by the late advices from China that this government, in their treaty with the Chinese, have legalized the exportation of coolies.

"This has been done, no doubt, in reference to obtaining a supply of labor for the cotton lands in Algeria.

"The great immorality of the Chinese adults heretofore imported has caused the subject to receive a careful and earnest attention, and a plan has been proposed to import boys and girls brought out under the care of priests and sisters of charity, who, on receiving them in China, will cleanse and clothe them, and begin immediately a religious and secular education.

"On arrival in Algeria and being distributed among the planters they will retain their teachers, and be ready with their little fingers to pick the cotton balls as they ripen. The cultivation of the land is to be effected with steam-ploughs and horse-hoes, as in this way an enormous area can be kept under culture at a small expense. The yield of cotton (as in the United States) being limited only by the number of pickers, cotton may be thus grown at half the cost of the American, owing to the difference in the value of land and slaves.

"In the year 1855 five bales of cotton were brought to Paris from Algeria, of the best quality, but the want of an organized system of labor similar to the slave system of the States caused the culture to be abandoned for a time. The great improvements in agricultural machinery have now removed this difficulty in part, and the importation of coolie children will supply all that is required to insure success at the present time.

"The children are to be apprenticed for twenty years, and to be always under supervision. When the picking season is finished, they are to be employed in raising their own food, and in weaving and making their clothing. At the end of their apprenticeship they can marry and become citizens, with an allotment of land, or return to China, as they please.

"Such, briefly, is the scheme, which will no doubt be adopted by England, and carried out in British Guiana and the other cotton lands in her extended colonies. That there is not a scarcity of cotton lands in the world, the application of the steam-plough with the coolie emigration will soon prove. Within five years France and England will raise at least half the cotton they use; prompted not only by the independence that this supply will give them, they will be urged on to the work by the great missionary enterprise which it will inaugurate.

"The organized labor of the rail-road system has rendered familiar the carrying out of great land operations with facility and rapidity, and four hundred children to a single ship will soon people the plantations when ready to receive them. I subjoin an article from the *Moniteur*, just published, which shows the enormous increase in the consumption of cotton in France in the past year, from which you will infer the solicitude of the government to engraft its cultivation upon the soil of the empire :

"We published on the 19th inst. the comparative tables drawn up by the Administration of Customs and of indirect taxes, presenting the imports and exports of the principal kinds of merchandise. The first fact that attracts attention is the large increase in the importation of certain raw materials destined for French manufacturers. Cotton, of which the quantities that paid duty were, in 1858, 715,000 metrical quintals, (221½ lbs. each,) and in 1859 739,000, attained in 1860 the enormous figure of 1,160,000 quintals. Even when deduction is made of the quantities sent abroad, there remain 1,083,070 quintals—that is to say, 344,000 more than the quantity consumed in the corresponding period of 1859."

TREATIES WITH JAPAN.

Lord ELGIN has recently visited Scotland, and in a speech delivered at Dunfermline he described his official visit to Japan, and gave an ac-

count of the negotiation of the English and American treaties with that country. His tribute to the energy and address of Mr. HARRIS, the American minister, is interesting. We quote :

“ When I went to Japan, in the year 1858, to negotiate a treaty, I found myself there in a very difficult position. In the first place, I had only a fortnight, and no more—owing to an obligation which I was under to return to China to arrange a tariff with the Chinese commissioners—from the day of my arrival at Yeddo, to perform the whole business. It is a curious thing, but I am never allowed more than a fortnight for such negotiations. When I went to the United States, in 1854, I was only allowed a single fortnight to negotiate a treaty which has admitted the whole produce of British North America to be brought into competition with the products of the United States in their own markets; and which likewise put an end to the risk of collision on the subject of the fisheries between this country and America, which was the most serious risk which had presented itself during the whole time I have been a public servant. I was in the same position in Japan.

“ I found that the American minister, who had been resident for some years in the country, had succeeded in obtaining a treaty which involved a very considerable accession on the part of the Japanese, and was a great advance on the former state of their relations with foreign countries. The Japanese were willing to give me a treaty on the same conditions as they had negotiated with the United States, but they were very unwilling to go beyond the provisions of that treaty. And you will understand that their disinclination was not very unreasonable, when you reflect that by those treaties we deprive them of the same control over their fiscal affairs which we enjoy in this country. When we want, in this country, to make any alteration in our customs, or any other fiscal matters, we get our Chancellor of the Exchequer to deal with them as Parliament or the nation thinks they require; but we bind these Oriental nations by treaties which deprive them of any power, whatever exigencies may arise, to impose other duties. It is very desirable, therefore, and it is only fair to them that these treaties should be all as nearly as may be in the same terms; otherwise merchants would go and pick and choose among the articles, and the result would be an amount of confusion which neither the merchants nor the Japanese could disentangle.

“ I therefore agreed to accept the American treaty. If you compare my treaty with China, which was my own making, with the treaty with Japan, which was made with the American minister, I think you will perhaps agree with me in liking the Chinese one the best. In framing alterations on the Japanese treaty, I confined myself as much as possible to things which were of the greatest importance; and one thing which I considered to be of the greatest importance was to obtain a lower rate of import duties for articles likely to be in most extensive demand. In the American treaty, I think twenty-five per cent. was the *ad valorem* duty imposed on all foreign imports; and I knew that if we could induce the Japanese to relax that duty with regard to a few articles of large consumption—the thin end of the wedge having been inserted in that way—in a short time we should, in all cases where we wished it, obtain a five per cent. instead of a twenty-five per cent. *ad valorem* duty.

“ Well, we had a great deal of difficulty and discussion about this. I found the Japanese exceedingly intelligent negotiators, very tenacious, and properly so, of their rights. At length I succeeded in inducing them

to agree to an *ad valorem* duty of five per cent. in the case of cotton and woollen manufactures; but I was quite aware that it was useless to try to obtain any relaxation as to linen manufactures. This was not, however, of very great importance, for at that time I believe linen goods were not at all, or hardly at all, known in that country. But I am happy to say that the principle upon which I went has been entirely justified by the result; because, in one year after that, another knock was given to the wedge, and our linen manufactures were let in at the same rate, I believe I am justified in saying, as wool and cotton. I don't pretend to tell you that there will be a great demand in Japan for linen immediately—we must create these demands; but the Japanese are a very changeable sort of people, and when they see the admirable specimens of linen manufacture that come from Dunfermline and other towns in this district, I believe they will be fascinated by them, and we shall have a large demand by and by."

THE CUSTOM-HOUSE REGULATIONS OF RIO JANEIRO.

The London *Shipping and Mercantile Gazette* complains, and apparently with sufficient cause, of the Custom-House regulations of Rio Janeiro; and as we have considerable trade with Rio, we suppose these regulations are as annoying to our trade as that of Great Britain. The *Gazette* says:

"By the law of 1836, every shipmaster entering the port of Rio is bound, on penalty of a fine of 100,000 reis in case of neglect or refusal, to enter the Custom-House within twenty-four hours after the Guarda-mor, or chief customs officers, is on board. He is liable to a similar penalty if he remains at his anchorage twenty-four hours after he has got notice from the Guarda-mor to remove, or if he attempt to discharge without an order from the 'inspector,' or if he omit to give notice to the officer attending the discharge of the cargo, when such discharge is completed. By the same law it is rendered imperative on every vessel leaving Rio for Bahia, Pernambuco, Maranhão or any other port of the empire, to have two manifests, exact copies of each other, setting forth the 'name, class and tonnage of the vessel; the name of the captain, whose signature must follow the date; the name of the port or ports for which the vessel is destined; the marks or counter marks and numbers of the packages, and their description as bales, cases, pipes, half-pipes, barrels, &c.; a declaration of the quantity and quality of the merchandise of each package, or several similar ones of the same mark, and also of what is on board in bulk; the name of the consignees or to order; all to be written in length except the numbers of the packages.' The regulations are all independent, of course, of the formalities required for manifests of cargoes in ships clearing for foreign. They are also independent of the various charges for anchorage, lights, port duty, health bills, hospital charges, seals on ship's papers at the rate of 40 reis (2d.) for every written half sheet. These by no means exhaust the list of charges to which foreign vessels, entering or clearing the port of Rio, are subject by the fiscal regulations of Brazil, but they are sufficient to show the nature of the obstacles with which the foreign trade with that productive country has to contend.

"So serious have the Brazilian Custom-House regulations become, that it has been thought expedient by those interested in the trade with Bra-

zil, at Liverpool, to hold a meeting for the purpose of adopting a memorial to the Brazilian government praying for a revision of the system of formalities required for clearances. The proceedings resulted in the appointment of a committee to wait on the Liverpool Chamber of Commerce, with the view of eliciting the opinion of that body on the subject, and of taking such steps as might seem most advisable towards procuring the repeal of the regulations in question. How far the efforts of these gentlemen have been successful we are not informed, but it can hardly be that a representation made to the Brazilian minister here, and forwarded to his government, would be entirely disregarded. If, however, the merchants and ship-owners of Liverpool fail to produce the desired effect on the Brazilian government, they should be joined in their representations by those connected with the Brazilian trade in London, and not only in London but in every port in the country which has any trade with Brazil. We had hoped that the advent to power of a new government at Rio would have been marked by a change in the regulations which have occasioned these remarks, and that we should have heard ere this that the Brazilian Custom-House system, so far as it relates to clearances, would have been revised. In this expectation we have been so far disappointed, but we can hardly believe that the government of Rio will continue to pursue a course which has already had, and must continue to produce, a most injurious effect upon the foreign trade of Brazil."

Our principal export to Brazil consists of flour, domestics and lumber, all easily described; but when any of our vessels have a general cargo the difficulties complained of by the British are also felt by us; we are, therefore, to a certain extent, a party interested in having them removed. Lately many American vessels have loaded in England for Rio Janeiro, but we suppose their cargoes were coal; nevertheless, everything which impedes commerce we ought to do our part in having removed or modified. We hope our government will call the attention of the Brazilian authorities to the Custom-House regulations of which foreigners have so much cause to complain.

FOREIGN TARIFFS.

The Statistical Department of the English Board of Trade has issued a parliamentary paper on the subject of tariffs. It is a return of the new and old rates of duty upon the several articles (so far as the same can be given) levied by the tariffs of foreign countries, in which alterations have been made, and showing the per centage increase or decrease of duties, and the date of their alteration, from the 31st December, 1859, to the 25th February, 1861. The list of countries included in the return are Russia, the Zollverein, France, Spain, Portugal, Cape Verde Islands, Sardinia, Naples, Greece, Morocco, Brazil, the Argentine Confederation, Venezuela, the Sandwich Islands and China. Upon pig-iron imported into the Grand Duchy of Finland, the reduction has been 82 per cent., viz., from 20s. 1½d. to 1s. 6d. per 3½ lbs. Great reductions have taken place in the duties hitherto levied on metals and hardware imported into Naples. On all kinds of old iron the reduction is 89 per cent., or from about 15s. 10d. to 1s. 9d.; on iron wire the reduction is 24 per cent., or from about 7s. 11d. to 6s.; on common wrought-iron upwards of 72 per cent., or from about 15s. 10d. to about 4s. 4d. On old tin and tin in blocks the reduction is upwards of 71 per cent., or from £1 4s. 9d. to about

7s., and on wrought-tin the fall is over 72 per cent., viz., from about £3 3s. 7d. to about 17s. 7d. On lead, in pigs, the reduction is 85 per cent., the old duty being 8s. 10d., whilst the new is nearly 1s. 4d., and on wrought-lead the new duty stands at a fraction over 7s., whereas the old duty was 17s. 8d., a reduction of 60 per cent.—all in 220·40 lbs. avd. On machinery the new duty is 1 per cent. *ad valorem*. Under the old duties steam engines for national vessels, and some other machines, might be imported duty free, under permission of the Minister of Finance. Hardwares are reduced from £3 10s. 8d. to £2 4s., or upwards of 37 per cent. in some descriptions, and from £10 12s. to £4 8s. in others, or 58½ per cent. per 220·45 lbs. avd. The new import duties adopted by the Brazilian government show that iron, in pig or ingots, has been reduced one-half since the period before the 3d of last November, but on filings the duty has been increased 33½ per cent. The duty on pig-iron is about 1½, on a little over 32 lbs., and that on filings is a little over 10½d. on the same quantity. A very slight reduction has taken place in sewing and packing needles, on the former of which the present duty is about 1s. 8½d., and on the latter about 1s. 3½d., on a fraction over 1 lb.; polished spars now pay 6s. 3½d. the dozen pairs; common locks about 2½d.; common buckles nearly 2d.; steel pens nearly 3s. 2d.; nails and tacks (common) up to 2 in., about 1½d.; above 2 in. somewhat over 1½d.; and nails with brass heads nearly 2½d., all per about 1 lb. In locks the new rates are an increase of 5 per cent., and in steel pens an increase of 133½ per cent. Buckles are a decrease of upwards of 22 per cent. Nails are an increase ranging from 15 per cent. to 17½ per cent. The duty on horse-shoes is now somewhat over 2s. 4½d. for somewhat over 32½ lbs., or a decrease of 12½ per cent. On the same quantity of copper mixed with zinc tinned the present duty is 6s. 9d., a decrease of upwards of 16½ per cent. Tin in bars, sheets, &c., and common utensils, the duty now is a little over 1s. 9½d., against the old duty of 1s. 8½d.; and zinc, in bars, sheets, &c., and common utensils, it is 2s. 3d. against 1s. 8½d., all on the same quantity last mentioned. The cutlery imported into Brazil is charged at per dozen instead of, as before, according to weight. The duty on pen, fruit and garden-knives ranges from about 1s. 1d. to about 8s. 1½d. per dozen. On scissors the new duty, as compared with the old, is an increase of 211 per cent., the prevailing duty being over 1s. 3d., whilst the former tax was not 5d. In the Argentine Republic the import duty on unworked brass and steel, copper in lumps, or sheets and bars, iron in bars, pigs, or sheets, tin plates and articles of soldered tin, the old duty of 20 per cent. *ad valorem* is reduced to 5 per cent. *ad valorem*, a decrease of 75 per cent. Works in metal, except gold and silver, are now charged 15 per cent. instead of 20 per cent., or a decrease of 25 per cent. These duties were dated from the 14th of last September. Since the 24th of last October cutlery has gone into China free. Yellow metal sheathing and nails now pay 6s., and Japan copper 4s. per 133½ lbs., instead of 10 per cent. *ad valorem* as before. Iron, manufactured, as in sheets, rods, bars, hoops, the new duty 10d. instead of 1s.; unmanufactured, as in pigs, 6d. instead of 8d.; on iron wire the new duty is 1s. 8d.; on lead, in pigs, it is 1s. 8d., a decrease of 37½ per cent., and in sheets 3s. 8d., an increase of 37½ per cent.; on steel the new duty is 1s. 8d. against 2s. 8d., a decrease of 37½ per cent.; but on tin it is 8s. 4d. against 6s. 8d., an increase of 25 per cent.; and on unenumerated metals the duty is 5 per cent. *ad valorem*, against 10 per cent. *ad valorem*, all per 133½ lbs.

JOURNAL OF AGRICULTURE.

BRITISH WOOL.

MR. CAIRD, M. P., read at a recent meeting of the Council of the Royal Agricultural Society of England a very interesting paper upon British wool. He remarked that, although there had been an immense increase in the importation from foreign countries and the colonies during the last twenty years, the rearing of sheep for the production of British wool continued to be one of the most profitable branches of our industry. Within the period referred to there had been, no doubt, in the imports from Spain and Germany, a diminution of about 4,000,000 pounds, but at the same time, to compensate for this, there had been an increase from Russia, the Low Countries, Denmark and Portugal, of no less than 20,000,000 pounds. There had been an increase within this period, in round numbers, from Australia, of from 13,000,000 pounds to 54,000,000 pounds; from South Africa, of from 1,000,000 pounds to 14,000,000 pounds; from the East Indies, of from 4,000,000 pounds to 14,000,000 pounds. At home, the increase in the amount of wool produced was equally remarkable. In 1842 the home-grown wool did not exceed 100,000,000 pounds. It now amounted to 120,000,000 pounds. There had been, in short, an augmented supply of wool to the extent of nearly seventy-five per cent. It had not been followed by any diminution of price to the home producer. Now, the countries in which the production of wool is likely to increase most rapidly, viz., Australia, the East Indies, South Africa and South America, are all unsuitable to the production of the lustrous long wools, for which there is a great demand. The British islands supply this wool in the greatest quantity. They may be almost said to have a monopoly of it, and there are no countries which can enter into competition with them. Mr. CAIRD is, therefore, of opinion that the British wool-grower should develop its production as much as possible, and he thinks the supply may be increased by good farming and liberal feeding. The best cross that could at present be adopted on suitable soils would, he adds, be obtained by using the improved Lincoln or Leicester ram, in which the desirable qualities of length, lustre, strength and fineness of wool seemed to be best combined.

FRENCH BEET-ROOT SUGAR.

According to an official return just published in France, concerning the manufacture of beet-root sugar from the commencement of the season 1860-61 to the end of the month of April, it appears that the number of establishments in activity were 334, being four more than in the corresponding period of the preceding year. The number of manufactories not at work, but having sugar still in stock, had diminished from twenty-four to fifteen. The quantity made was 97,900,000 kilogrammes, being 27,000,000 less than in the corresponding period of 1860. The quantity delivered for consumption had increased from 6,000,000 to 18,500,000 kilogrammes.

THE WILD SILK WORMS OF INDIA.

Dr. EIGHTS, of Albany, has received a fragment of the silken cloth woven from the threads of one of the *tussah*, or wild silk worms of India. He says :

I send you samples from three distinct species, which are to be found in all the western forests, extending from Ramghur to Midnapore ; the cocoons of each are collected in the month of September.

The first of these (which, in the language of the country, is termed the *mooga*) is the most common and plentiful ; the thread is coarse in its texture, but can be wound with the greatest facility. The cocoons are obtained directly from the trees of the forest, and are sold in an unprepared state to the purchasers. The caterpillars are to be found freely feeding upon the leaves of the ashan, saul and sejah trees, being frequently placed on their branches when found elsewhere for that purpose. These larvæ commence spinning their cocoons about the middle of the month, and complete the process near its close ; they are then collected and placed in boiling water to destroy the grub.

The *teerah* is the second species. It furnishes a much smaller cocoon, and is supposed by many to be the male of the former. The thread is represented as being much finer in texture, but not so easily reeled.

The third is the *bombunda*, the largest of the wild silk worms in the country, and from which the present specimen of silk cloth was obtained. This is the species that bears so close an alliance to the *saturnia cecropia* of this country, spoken of in a former article. In its wild state, the cocoon is of much larger size than any of the cultivated species. In some seasons it is to be found in considerable quantities, but it is generally scarce. This is supposed to be owing to the depredations of many of the feathered races, who esteem them highly as an article of food.

These three species, belonging to the same genus, are termed by the natives, the "rainy weather" varieties ; but there are others peculiar to the dry months, which, by way of distinction, are called the *dabbo* and the *buggoy*.

The former of these yields a fine thread and an excellent cocoon. The chrysalis begins to eat its way through the pod from the 8th of June to the termination of the month, and spins its mantle from the middle to the end of August.

The *buggoy* is of a light drab color, giving out a fine thread, and very soft ; so much so as almost to equal in value the cocoon of the mulberry silk-spinning moth, particularly those reared in the vicinity of Singhboom. It approaches so near to the pure silk that the weavers are said to mix it frequently with the real, in the proportion of one thread to three, at their manufactories. The seed is procured in August and September. Spinning begins in the middle and is completed by the end of November.

There is another inferior species gathered in December, called the *yarroy*. It is a small cocoon, and difficult to wind ; the thread, also, being exceedingly harsh. The seed is procured in the month of October, and the caterpillars spin their cocoons from the 15th to the close of December. It is held in less estimation than any of the other species. The natives, in preparing the silk for use, boil the cocoon in an alkali until it shells off and the threads appear to separate.

AGRICULTURAL PRODUCTS OF IOWA FOR 1861.

The presence at the capital of members of the legislature from nearly every county in the State during the past week, presented an excellent opportunity for obtaining important information in regard to the present agricultural position and prospects of Iowa for the year 1861. After careful inquiry the subjoined facts have been elicited. They are believed to be correct, and the increase indicated is within rather than above the real condition of things. Yet, as the members had not prepared themselves to give positive information, it must only be received as a pretty fair approximation to the true condition of our probable agricultural resources for the present year. Should the season continue favorable, however, it is believed the general aggregate will be sustained.

It appears from the returns the breadth of wheat sown in the State is about one-fourth more; of corn nearly one fifth more, and of pork for market there will be at least one-third more than in 1860. And of the crop of corn of 1860 there appears to be over one-third, and of wheat over one-fourth on hand. That the indications for a good crop of wheat were never better, and that the yield would fully equal that of last year, 16 bushels per acre as the average of the State; and that about one-half of the corn was planted by the 11th of May.

In addition to the above, I learn that all the cereal crops indicate an excellent yield; that preparations are making for a greater breadth of sorghum and imphee than in any previous year; that much of the land has been seeded with clover and timothy, probably double that of any previous year. In short, that our farmers are working and seeding as much land, and perhaps more, than they may find force enough to secure the yield therefrom.

As published last year, the yield of wheat was upwards of 19,000,000 bushels, or an average of 16 bushels to the acre; add for the additional breadth of land sown last fall and this spring, at the same average per acre, at least 4,000,000 bushels, and we have the probable amount of 23,000,000 bushels for 1861—all of which can be spared out of the State, as we have about 5,000,000 bushels on hand for home consumption for a year. This, if sold at 50 cents per bushel, will give us \$11,500,000.

The corn goes into beef and pork. The published estimate of last year from this office was \$7,000,000 worth for both these items. This sum is nearly equally divided between them. From the data obtained we have a pretty sure prospective increase of one-third for pork over 1860, and from extensive inquiry and the known average increase, one-fourth may be safely put down as the probable increased product of beef cattle. This will give the aggregate value \$9,375,000 for 1861, for beef and pork, beyond our own consumption; but as the prices may range lower, it would be altogether safe to place the amount at *eight millions of dollars*.

The result of all the above is, that the present prospective product of this State for the year 1861, beyond our home consumption, for wheat, hogs and beef, will be worth \$19,500,000.

WM. DUANE WILSON, *Sec. Ag. Col.*

OFFICE OF AGRICULTURAL BUREAU, }
Des Moines, Iowa, May 22, 1861. }

STATISTICS OF POPULATION.

CITIES OF EUROPE.

Population of the Principal Cities of Europe according to late returns.

London,.....	2,950,000	Pesth and Bude,.....	186,945
Paris, ...	1,525,525	Rome,.....	180,359
St. Petersburg,.....	494,656	Turin,.....	179,655
Vienna,.....	476,222	Hamburg, ...	171,696
Berlin,.....	438,961	Copenhagen,.....	113,635
Naples,.....	413,920	Venice,.....	118,172
Madrid,.....	301,660	Dresden,.....	117,750
Lisbon,.....	275,286	Munich,.....	114,734
Brussels,.....	263,481	Stockholm,.....	101,502
Amsterdam,.....	248,756		

THE NEW CONGRESSIONAL APPORTIONMENT.

The Secretary of the Interior has addressed the following official communication to the Speaker of the House of Representatives :

DEPARTMENT OF THE INTERIOR, }
Washington, July 5, 1861. }

To the Speaker of the House of Representatives :

I, CALEB B. SMITH, Secretary of the Interior, do hereby certify that, in discharge of the duty devolved on me by the provisions of an act of Congress, approved May 23d, 1850, entitled "An act providing for the taking of the seventh and subsequent censuses of the United States, and to fix the number of the members of the House of Representatives, and to provide for the future apportionment among the several States," I have apportioned the representatives for the thirty-eighth Congress among the several States as provided for by said act in the manner directed by the twenty-fifth section thereof. And I do hereby further certify, that the following is a correct statement of the number of representatives apportioned to each State under the last or eighth enumeration of the population of the United States, taken in accordance with the act approved 23d May, 1850, above referred to :

To the State of—

Alabama,.....	6	Minnesota,.....	1
Arkansas,.....	3	Mississippi,.....	5
California,.....	3	Missouri,.....	9
Connecticut,.....	4	New-Hampshire,.....	3
Delaware,.....	1	New Jersey,.....	5
Florida,.....	1	New-York,.....	31
Georgia,.....	7	North Carolina,.....	7
Illinois,.....	13	Ohio,.....	18
Indiana,.....	11	Oregon,.....	1
Iowa,.....	5	Pennsylvania,.....	23
Kansas,.....	1	Rhode Island,.....	1
Kentucky,.....	8	South Carolina,.....	4
Louisiana,.....	5	Tennessee,.....	8
Maine,.....	5	Texas,.....	4
Maryland,.....	5	Vermont,.....	2
Massachusetts,.....	10	Virginia,.....	11
Michigan,.....	6	Wisconsin,.....	6

The aggregate being two hundred and thirty-three (233) representatives.

In testimony whereof, I have hereunto subscribed my name and caused the seal of the Department of the Interior to be affixed, this fifth day of July, in the year of our Lord one thousand eight hundred and sixty-one, and of the independence of the United States of America the eighty-sixth.

CALEB B. SMITH.

THE CHINESE IN CALIFORNIA.

The probable number of Chinese now in the State of California, it may be of some interest at this period, to inquire. Previous to 1852, the immigration of the Asiatics to that coast did not exceed a few thousands. Owing to the destruction, by fire, of the Custom-House records in 1851, there is no positive data as to what that immigration was, but from figures offered in 1856, by Mr. HANLEY, a Chinese agent, who had the subject specially under consideration, it is presumable that the excess of arrivals over departures, previous to 1852, was about 5,000. We shall adopt this number in the following estimate, and furnish details of subsequent years:

	<i>Arrivals.</i>		<i>Departures.</i>		<i>Increase.</i>
Previous to 1852,.....	5,000	....	....	....	5,000
1852,.....	20,026	....	1,768	....	18,258
1853,.....	4,270	....	4,221	....	49
1854,.....	16,184	....	2,330	....	13,854
1855,.....	3,473	....	3,329	....	144
1856,.....	4,807	....	3,028	....	1,779
1857,.....	5,924	....	1,932	....	3,992
1858,.....	4,903	....	2,152	....	2,751
1859,.....	3,182	....	2,715	....	467
1860,.....	7,241	....	2,068	....	5,173
1861, to date,.....	957	....	737	....	220
Total,.....	75,967	....	24,280	....	51,687

THE BRITISH CENSUS OF APRIL, 1861.

The first British census was taken under Mr. PITT's administration in 1801. It was the year of the union with Ireland; a year of famine, and a year of sanguinary war with France, having the northern confederacy for its allies. The population of Great Britain was estimated at 7,392,000 in 1751. Manufactures and the large towns increased, but emigration was commencing, and some country villages were deserted. Goldsmith sang:

Ill fares the land to hastening ills a prey,
Where wealth accumulates and men decay;
Princes and lords may flourish or may fade,
A breath can make them as a breath has made:
But a bold peasantry, their country's pride,
When once destroyed, can never be supplied.

And Dr. PRICE contended that there was an absolute decay of the population. This gave rise to a protracted controversy, which, in the critical

state of the country, it was important to settle. The population of Great Britain was then enumerated in 1801, and amounted to 10,917,000, and with that of Ireland united with her, made above 16,000,000. This was a triumphant reply to the doubts of those who despaired of their country. Notwithstanding the war the population increased, as the census showed, at the rate of two to three millions every ten years until 1841. Then immense emigrations took place; there was a depopulating famine in Ireland, which had an imperfect poor law, and cholera was epidemic; yet the population of Great Britain was augmented by 2,308,000, and although the population of Ireland fell off, the people of the United Kingdom amounted to 27,724,000 in 1851. There will be no investigation as to the "religious profession" of any one. That inquiry, when proposed last year, having been met with general disapproval, was abandoned by the government.

The census concerns every individual in the British Isles. Early in April a schedule was left with the occupier of every house and apartment; and shortly after sunrise, on Monday, 8th April, 30,441 enumerators in England and Wales began their calls at every house, and collected the schedules which they have previously left, filling up those of persons who have been unable to write. A similar army performed a precisely similar operation in Scotland, in Ireland and in Australia. It is sometimes asked, why is the seventh census to be taken? What is the use of the information to be collected? The injunction "know thyself" is as binding on nations as on individuals.

CITIES IN GREAT BRITAIN.

Partial returns of the new census of Great Britain are given in the latest English papers. The official record of the cities of Liverpool, Manchester and Glasgow is published, and sufficient returns have been received from the agricultural districts to show a decrease in the population. We glean some interesting facts from the statistics.

Liverpool.—The population of Liverpool, in round numbers, is 450,000. The city proper contains but 263,000 persons, the remainder being distributed in the suburbs of Exeter, Kirkdale, West Derby and Toxteth Park. The port of Liverpool has a large floating population of sailors, reckoned in this census at about *fourteen thousand* men. In 1841 the number of sailors was twelve thousand, in 1851 it was thirteen thousand, and in 1861 but one thousand more than ten years ago. The total population of the city and its suburbs, at the census of 1851, was 375,955, so that the increase in ten years has been a little more than twenty per cent.

During the last four years the number of inhabited houses in Liverpool has likewise increased from 54,000 to 66,000. In 1831 the buildings in the town were estimated to cover an area of 6,000,000 square yards, while in 1765 they only covered an area of 1,184,000 square yards.

Manchester.—Manchester has decreased in population, losing 2,000 inhabitants of the city proper by reason of the conversion of dwelling-houses to office and other business purposes, and alterations in narrow streets. The increase in the townships adjoining that of Manchester is

extraordinary, but may be accounted for by the compulsory migration from Manchester arising out of the causes mentioned. The present population of the city and its suburbs is 357,000—a gain of 40,000 in ten years.

The census superintendent in Manchester reports, that while the decrease in the city proper is going on, the conversion of the property out of which it arises increases the gross assessment of the township, by better buildings, in a remarkable way. The effect will be to reduce the poundage on the poor and other rates, and eventually to reduce pauperism by the sweeping away of the lower descriptions of dwellings.

Glasgow.—The analysis of the census of the city of Glasgow has been published. The population of the “ancient burg” of Glasgow amounts to 403,142; of whom 189,220 are males and 213,922 are females. The population of the district known as the “ancient burg” and the suburbs is 446,395; of whom 209,999 are males and 236,396 are females. The amount of the population in 1851 was 360,138; thus showing an increase, in 1861, of 86,257. In 1861 the number of inhabited dwellings was 82,609, and of uninhabited, 4,002, compared with 63,153 and 1,547 in the year 1851, being an increase, in 1861, of inhabited dwellings, to the extent of 19,456, and of uninhabited, 2,455. The population is composed of 326,374 Scotch, 10,809 English, 63,574 Irish, 827 foreigners, 1,440 colonists, and 118 not ascertained. The number of males between the ages of five and fifteen amounts to 40,694, with 40,118 females; and of this number 116,868 males and 16,214 females were not, at the taking of the census, at school. The number of domestic servants within the city was 218 males and 12,856 females; total, 13,074.

EMIGRATION FROM GREAT BRITAIN.

Some surprise may be excited by the fact, made apparent by an official return, that in the last fifteen years 3,504,062 persons have emigrated from the United Kingdom. This prodigious exodus has in great part taken three directions—the North American colonies, the (dis) United States and the Australian colonies. But an analysis shows that Brother Jonathan has, notwithstanding the powerful allurements of the antipodean gold discoveries, obtained by far the lion's share of our surplus strength. Thus, every one hundred emigrants selected their future homes in the following proportions:

YEAR.	British America.	United States.	Australia.	Other Places.
1846,.....	34	63	2	1
1847,.....	42	55	2	1
1848,.....	13	76	9	2
1849,.....	14	73	11	2
1850,.....	12	79	6	3
1851,.....	13	80	6	1
1852,.....	9	66	24	1
1853,.....	10	70	19	1
1854,.....	14	60	25	1
1855,.....	10	59	29	2
1856,.....	9	63	26	2
1857,.....	10	60	29	1
1858,.....	8	52	35	5
1859,.....	6	58	26	10
1860,.....	7	68	19	6

The great preponderance obtained by the United States was derived from the Irish emigration, through religious and political influences, and, subsequently, family ties. What influence the present disturbances may exert upon the Republican territory, as an emigration field, it is of course impossible to predict; but they can hardly exercise a favorable effect. Canadian journals are evidently of this opinion, and are doing their utmost to divert the tide of emigration to their own shores. The advocates of emigration to Canada have, however, it will be seen, met with singular ill success—for it is now only one-fourth as popular as it was fifteen years since—the emigrants to British America having numbered 43,439 in 1846, as compared with 9,786 in 1860. This, no doubt, is due to the superior attractions now presented by Australia, New-Zealand, the Cape and other emigration fields.—*Times*.

POPULATION OF THE WORLD.

M. DIETRICH, director of the office of Statistics at Berlin, has published in the annals of the academy of that city the result of his researches relative to the present population of the globe. An addition to his calculation of the total number of inhabitants, which he puts down at upwards of 1,288,000,000, M. DIETRICH estimates the number of the different human races as follows: the Caucasian, 369,000,000; the Mongol, 552,000,000; Ethiopian, (negroes,) 196,000,000; the American, (Indians,) 1,000,000; the Malays, 200,000,000. The leading religions he divides as follows: Christianity reckons 335,000,000 adherents; Judaism, 5,000,000; the Asiatic religions, 600,000,000; Mahometanism, 160,000,000; and Polytheism, 200,000,000. Of the Christian population, 170,000,000 belong to the Roman Catholic church; 80,000,000 to Protestants, and 76,000,000 to the Greek church.

CURIOSITIES OF THE ENGLISH CENSUS. .

Relative Population of London and the Provincial Towns—Excess of Females in England.—The Registrar-General estimates the number of English emigrants from the United Kingdom in the ten years between 1851 and 1861 at 640,210, and returns the number of registered births over registered deaths in the same period at 2,260,576. This would leave an increase of 1,620,366, but the actual augmentation enumerated on the 8th of April was 2,134,116, showing that 513,750 births must have passed unregistered in the ten years. It appears that the population of London is nearly equal to that of the twenty leading provincial towns, having a population of 70,000 and upwards—Bolton, Birmingham, Bradford, Brighton, Bristol, Hull, Leeds, Liverpool, Manchester, Newcastle, Norwich, Nottingham, Oldham, Portsmouth, Preston, Salford, Sheffield, Stoke-upon-Trent, Sunderland and Wolverhampton, all put together—the metropolis having 2,803,034 inhabitants, and the great provincial centres, 2,963,945. The population of the latter is, however, increasing more rapidly than that of the metropolis, the augmentation having been 440,798 in London, as compared with 591,058 in the provincial towns, so that COBBETT's "great wen," is not, as some assume, absorbing all the power of the State.

With regard to forty-three secondary towns, the population of which ranges between 20,000 and 50,000, an advance has been made from 1,414,093 in 1851, to 1,653,386 in 1861, showing an augmentation of 239,293; and one hundred and seven still smaller towns, including, as in the case of their larger brethren, the additions made to many of them for parliamentary purposes, having a population of from 5,000 to 20,000, had in 1851, 954,038, and in 1861, 997,389 inhabitants, showing an augmentation of 43,351. The metropolitan district consequently increased in population at the rate of eighteen per cent.; the great centres of manufacturing industry at the rate of twenty-four per cent.; the second-class towns at the rate of seventeen per cent.; and the little boroughs at the rate of four per cent. In fourteen still smaller townships, having less than 5,000 inhabitants each, the population remained all but stationary, being 52,108 in 1851, and 52,559 in 1861; so that the lower one gets in the scale the more stagnant one finds the tide of human life.

The excess of the fair sex in England amounts to the alarmingly large total of 544,021; but this disproportion between the sexes is not universal, the rougher section of humanity being in a majority in Derbyshire, Durham, Essex, Herefordshire, Kent, Hampshire, Staffordshire and Westmoreland. In Middlesex there are 165,389, and in Lancashire, 86,100 more women than men, and the agricultural counties also reflect the continuous drain of emigration upon their adult male population.—*London Times*.

VITAL STATISTICS OF 1860.

The Registrar-General for England has issued his annual tables of the number of births, deaths and marriages of 1860. The number of births and deaths had been already stated in the last quarterly report, but the number of marriages (170,305) had not then been ascertained. It is larger than in any previous year; the nearest approach to it was in 1859, when the number was 167,723. The births in 1860 (683,440) were fewer by 1,441 than in 1859, but that is the only year in which they were exceeded; the deaths (422,472) were happily less by 18,777 than in 1859, and less also than in 1858, 1855 or 1854. Allowing for the estimated increase of population, the births in 1860 were slightly above the average rate of the preceding ten years, the marriages were more above it, and the deaths were still more below it, all movements in the right direction. As usual the first half of the year saw the greatest number of births, about ten per cent. more than the last half, and the deaths in the first moiety were greater than in the last by the large ratio of 23 per cent. The last quarter was, as usual, the marrying season; there were 50,702 marriages, and only 35,198 in the first quarter. Lincolnshire is always a notable exception to this last rule; there the spring quarter is the chief time for marriage. The termination of the ordinary periods of service has, doubtless, much influence in this matter.

VITAL STATISTICS OF SCOTLAND.

The Registrar-General for Scotland, who has hitherto issued no detailed annual reports, has just commenced the series, beginning with his first

year of office, 1855. Taking first the births, the superintendent of statistics calls attention to the circumstance that the proportion of boys born to girls is greater in the rural districts than in the towns, in which, indeed, in that year, the illegitimate boys born were absolutely fewer in number than the girls. This is attributed to a residence in towns weakening the physical strength of parents, and it is considered a rule so established as to "afford a valuable hint to those who desire male progeny." With reference to incontinence, the report states that it is found most prevalent in those districts in which farm-work is done by unmarried young men and women, who sleep in the farm-house, or sometimes in bothies set apart for that purpose. It is contended that in many of the irregular connections which too often in Scotland are substituted for marriage, the parties are true to each other, and that, indeed, the vice of unchastity seems greatly owing to the excess of a Scottish virtue, for the proportion of illegitimate births is highest where the test of signature of the marriage register indicates the greatest prevalence of education, and where, therefore, it may be supposed that the prudential check operates most to prevent improvident marriages. It would appear from the year's returns that, though marriages are much fewer in Scotland than in England, yet when Scotchwomen do marry they are more prolific than the English. Some rather curious matrimonial statistics are supplied. It is remarked that widows, marrying bachelors, selected, as a general rule, husbands younger than themselves; "the *status* which the widow had acquired by her former marriage presented inducements to the unsettled bachelor, which gave the widow a great advantage over her unmarried sisters; and, as power is dear to every heart, a younger member of the opposite sex was selected, as more likely to leave that power in her hand than if the chosen second husband had been her senior in years." The Scotch stand the educational test well; 88.6 per cent. of the men who married, and 77.2 of the women, signed their names. In England, in the same year, the proportions were 70.5 and 58.8. The deaths in the year (a year of more than average mortality) were only 206 in 10,000 persons, showing Scotland to be one of the very healthiest countries on the face of the globe. The annual per centage of deaths to population is stated thus: Scotland, 2.06; England, 2.21; France, 2.36; Belgium, 2.52; Holland, 2.76; Prussia, 2.83; Spain, 2.85; Sardinia, 2.91. Some points of interest in relation to disease and mortality are noticed. Including the secondary diseases, twice as many women died from childbirth as in England. This is thought not much attributable to distance from medical aid, and the question is raised whether it is not owing to certain anatomical conformations. It may seem strange to speak of Scotland as a place for the consumptive, but Argyll and the Western Isles enjoy a remarkable immunity from consumption; those islands have a mild winter climate, with a more humid atmosphere than the main land when the arid easterly winds prevail in spring. Of the influence of weather, we learn that in Scotland, with the single exception of diarrhœal complaints, all the ordinary epidemics of the country increase with the increase of cold, and it is the cold that kills. The diseases induced by heat seldom prevail anywhere until the mean monthly temperature rises above 60 degrees, and that is a rare occurrence in Scotland.

RAIL-ROAD, CANAL AND TELEGRAPH STATISTICS.

BUFFALO AND NEW-YORK CITY RAIL-ROAD.

THE New-York and Erie Rail-Road Co. has purchased the above road for \$125,000. The road thus purchased is 91½ miles long, from Hornellsville to Buffalo, and has been run by the Erie Rail-Road under a running arrangement.

This road was first commenced in 1850, and opened for business between Attica and Hornellsville in 1852, at which time its funded debt in bonds secured by mortgage on this section of road, 60 miles long, amounted to \$700,000, payable in fifteen years. The company then purchased the portion between Buffalo and Attica, 31½ miles, and made a further issue of \$500,000 bonds, having eight years to run, secured by this section. In 1853 the company made a further issue of \$500,000 bonds, payable in twelve years, secured by second mortgage on the whole road. After this issue the company failed to pay interest, and in 1855 suit was commenced by the second mortgage bondholders. The road was sold in 1856 for \$379,568. The purchasers conveyed it, in 1857, to the Buffalo, New-York and Erie Rail-Road Company, and this company assumed the payment of the first mortgage on the Buffalo and Attica section. At the date of the report, in 1855, the cost of the road stood as follows:

Stock, ...	\$ 798,439
Funded debt, ...	1,720,000
Floating debt, ...	867,849
Total, ...	\$ 3,386,288
The earnings in the same year were,	
Gross earnings, ...	\$ 288,392
Expenses, ...	256,496
Net earnings, ...	\$ 31,896
By the present sale the whole property brings \$125,000.	

MICHIGAN.

The Detroit *Daily Advertiser* states that the last legislature of Michigan not only passed a law extending the time for completing the land-grant rail-roads the full time allowed by the act of Congress making the grant, but also one giving them two hundred and forty sections as soon as they shall complete twenty continuous miles of road, provided that the Lansing, Amboy and Traverse Bay Road shall be completed to Lansing City from Owosso before being entitled to the additional one hundred and twenty sections. This last law, it is confidently asserted, will enable the companies to make such negotiations as are alone required to finish these important roads.

PHILADELPHIA.

At a special meeting of the board of managers of the Philadelphia and Reading Rail-Road Company, held on Saturday, June 1st, 1861, the resignation of ASA WHITNEY, Esq., president of the road, was accepted, to take effect on the 15th July next. The adoption of Mr. WHITNEY's resignation of the presidency was followed by his being elected a manager, and CHARLES E. SMITH, Esq., one of the present managers, was unanimously elected president of the road, to succeed Mr. WHITNEY. At the same meeting Mr. STEELE resigned his offices of vice-president and manager, to take effect on the 1st of September 1861, and was unanimously elected chief engineer of the company, to take effect from that date.

RAILWAYS IN AUSTRALASIA.

There are eight railways radiating from Melbourne in different directions, from three stations. The Suburban, a competing line with part of the Brighton, has been opened to Prahran and East St. Kilda. This railway has another branch to Hawthorne. The following is a list of those now in operation: Melbourne, St. Kilda and Brighton, 8 miles; Melbourne and Sandridge, $2\frac{1}{2}$; Melbourne and Williamstown, 9; Melbourne and Geelong, 47; Melbourne and Sunbury, 24; Melbourne and Essenden, $4\frac{1}{2}$; the Suburban, two branches, 7: total, 102 miles. The Sandhurst will be opened to Woodend, about 22 miles beyond Sunbury, in March or April. The practicability of street tramways is under discussion in the City Council, and locomotives on common roads are actually in use in New South Wales.

TRAFFIC THROUGH FRANCE.

The remarkable increase in the flow of traffic through France this year, which was noticed recently, still continues. The last weekly return of the Paris, Lyons and Mediterranean line exhibits the immense increase (on only two additional miles) of £20,085, and since the commencement of the year the augmentation has been no less than £130,000, while on the London and North Western—thanks to the “unrestricted competition” which prevails in England—the advance has barely amounted to £10,000. The increased traffic on the great French arterial line has been mainly derived from merchandise, which figures in the last weekly return for £63,799, while passengers yielded the comparatively small sum of £19,837. From this it would appear that the commercial resources of the south of France are being much more actively developed than hitherto.

RAIL-ROAD BRIDGES.

The directors of the New-York Central Rail-Road have commenced the construction of a new bridge over the Tonawanda Creek, at Batavia. The *Batavia Times* states that the new structure will be a wrought iron trussed girder bridge of one hundred and twenty-four feet span, embracing the double track between two girders. The trusses consist of frames stiffened and strengthened by lattice work, and when viewed in sections as they now lie in a detached and bulky form, impress us favorably as to their capacity of sustaining an immense strain. The total weight of iron used in its manufacture is 205 tons, and the bridge is capable of sustaining a weight of about twelve hundred and fifty tons, a strain five times greater than can be brought to bear upon it by any passing train.

OCEAN TELEGRAPHS.

The Geographical Society, popular and very prosperous, (for at each of its fortnightly meetings a score of members are added to the 1,400 already enrolled,) met recently. The main subject discussed was the North Atlantic electric cable. We may offer a few observations on this subject. The discussion arose out of papers read at the preceding meeting by the persons who conducted the survey by land and sea from Scotland to Labrador, and when we say that those persons were Sir LEOPOLD M'CLINTOCK, Captain ALLAN YOUNG and Dr. RAE, it is the same as saying that it was performed with skill and intrepidity. But the practicability of connecting the Old and New World by an electric cable is a very different matter from a survey. Schemes as feasible, and even a good deal more so, have totally failed; but the reader shall judge for himself when we enumerate a few of them. First, then, the great Atlantic cable has been a great failure, and has cost the subscribers, as far as we understand, £450,000; the pounds and cable are equally at the bottom of the Atlantic. The next attempt was a greater, because a more costly failure. This was the Red Sea and Indian affair. It was to have brought the Nile and the Indus almost within hail of each other, although the distance between them was little short of 1,700 miles. For this adventure the government has given a guarantee of $4\frac{1}{2}$ per cent. on a million sterling for half a century, or, in other terms, the nation is for that long time to pay an annuity of £45,000 without receiving the smallest consideration in return. It never conveyed even a single message throughout, so that, as far as the nation is concerned, the million sovereigns might as well have been consigned to the sea that swallowed up Pharaoh, his horses, his chariots and his horsemen. In the able debate which took place in the House of Commons, an honorable member naively and drolly ascribed the failure "to certain occult causes at the bottom of the sea, which could not be provided against." Our next speculation was meant to connect England with Spain by Falmouth and Gibraltar, and the government bargained in this case for a first-rate cable at the cost of some £400,000, but the Atlantic being deemed too deep for it, it was transferred to Rangoon and Singapore, a distance of 1,200 miles, embracing the best part of the Bay of Bengal and the whole of the Straits of Malacca, among a hundred isles, islets and coral reefs. The ship bearing it was wrecked in Plymouth harbor, when the cable was discovered to be damaged by the corrosion of the iron and the decomposition of the gutta serena. It was not, therefore, deemed good enough for the Indian Ocean, and it is now destined to connect Malta with Alexandria; all the cables of the Mediterranean, whether English or French, having already failed. If we include the cable which was to have connected Malta with Spezzia, through Sardinia and Corsica, and that which was to have connected Malta with Corfu, both of which have failed, we have spent not less than two millions in experimenting upon oceanic cables. But we are not the only people who have failed in the matter of long cables. The cable that was to have connected Algeria with France will not work, although it embraces but the breadth of the Mediterranean. The Dutch laid down a cable between Batavia and Singapore about six months ago. The distance is 660 miles, and it conveyed, like the great Atlantic cable, a few messages, when it stopped. Ships' anchors and coral reefs were

fatal to it ; it has broken a score of times, and has been finally given up as a hopeless project. Such, then, being the result of our experience of oceanic electric cables, what chance of success can there be with a cable that proposes to bring the Old and New World together by the route of Scotland, the Faroe Islands, Iceland, Greenland and Labrador, over seas infested by icebergs, and along ice-bound coasts ? We fear none whatever. The distance is little short of that across the South Atlantic. There are sea-gaps of 800 and of 500 miles, and the inhospitable land is rather an hindrance than an advantage. We are, then, decidedly of opinion that a North Atlantic cable is a hopeless project that will not be, and ought not to be, attempted. The government, goaded on by the press and the public, has been already severely bitten, and will assuredly not guarantee a farthing. Without its guarantee there will as assuredly be no subscribers. Until some great discovery is made which no man at present even dreams of, our electric cables must be confined to the narrow seas, and the wafting of "sighs from India to the Pole" must be still an achievement known only in the domain of poetry.—*Examiner*.

THE RUSSIAN TELEGRAPH FROM CHINA TO EUROPE.

It is an established fact that mercantile houses of long standing in the East are very conservative in their ways, and view with little favor the innovations caused by steam and electricity. Lieutenant WAGHORN, the pioneer of the overland route to India, found small acceptance when he visited Canton in 1838, and proposed to British merchants the formation of the line afterwards made by the Peninsular and Oriental Steam Navigation Company ; and had Chinese affairs remained as they were—had there been no opium war, no Hong Kong under British rule—it is more than probable that we should not to this hour have had a line of mail between this and Suez. Bearing this conservatism in mind, it seems problematical whether the proposed line of telegraph between China and Russian Europe is not deemed by leading merchants here a nuisance rather than a good. This telegraph way, according to late advices, is making rapid progress and is already complete over some 600 miles to the eastward of Moscow, viz., to Perm, on the border of Siberia, say to long. 55 deg. E. and lat. 58 deg. N. From Perm the line will cross the Uralian Mountains to Ickaterinberg, and thence to Toumain on the left bank of the Irtysch. From Toumain the line is to run to Omsk, a fortified town the importance of which may be judged by the circumstance of its having a garrison of 4,000 men. From Omsk the line will proceed to and through Tomsk and on to Krasnoyarsk. This place is only 500 miles northwest of Kiakhtha, to reach which, however, the wire will pass through Irkutsk, the capital of Eastern Siberia. From Kiakhtha, (Mai-matsin, in China,) it is proposed to carry the line over the Yablanovoi Mountains to Cheta, to which place steamers already run from Nicalouski, on the Amoor. The line will not follow the line of the Amoor River, however, but across to Nestchmisk, and then down the Shilka River to Ourstrelka, a point just 6,000 miles from Moscow. How long it will take to construct the whole line we are not in a position to say ; two or three years perhaps. Once constructed, however, the terminus on this side will become a place of note, and prove a leading instrument in the steady march of civilization in the East.—*Friend of Chinu*.

THE MALTA AND ALEXANDRIA TELEGRAPH.

Messrs. FORD and LAWS, electric telegraph engineers, returned from the coast of Barbary, in the *MOHAWK*, last week, whither they had proceeded in that vessel for the purpose of selecting a landing-place for the electric cable about to be laid between Malta and Alexandria. The points at which it has now been determined to land the cable are Bengasi and Tripoli. In Malta it will be landed at Marsasirocco, (St. George's Creek,) and arrangements for this purpose are being made. The land line will pass between Casal Asciak and Casal Zeitun by Casal Tarascien and Casal Paola, through Marsa, into the town. The wire will be raised on the newly-invented iron tripod supporters, and not on wooden poles, as in the case of the Corfu and Sicily lines. The cable, on board of three or four ships, may be expected here about the end of the month.—*Malta Times*.

NEW SUBMARINE TELEGRAPH CABLE.

The renewed concession of the French government to the Submarine Telegraph Company having stipulated that a third cable should be laid for more direct communication with Lyons, Bordeaux, Toulon, Genoa and the Mediterranean, the *ASIA* screw steamship took on board 81 miles of cable for that purpose, and with Mr. HENLEY, the contractor for laying it, proceeded to Dieppe. The shore end having been successfully laid, the *ASIA* returned to Beachy Head, making 58½ miles, and the cable was carried ashore without accident at Birling Gap, about a mile to the westward of Beachy Head. This cable constitutes an addition of 60 miles to 806 already laid by this company.

THE AMERICAN TARIFF IN ENGLAND.

A feeling akin to consternation pervaded a portion of the iron trade on 'Change at Wolverhampton on the 6th of March, at the intelligence that the new American tariff bill had, in all probability, become law. Should this bill become law, it will prove most disastrous to the iron trade of Great Britain, inasmuch as scarcely any iron of British make can, with such a duty as that proposed, find any sale in the American markets. On bars, the principal description sent out, the increased duty would be more than a guinea a ton; on hoops, chiefly used by the southern States for baling their cotton, £2 6s.; on boiler plates, £1 14s.; and on all kinds of sheet iron, £1 17s. The increase on hardware will be in the same proportion. On best cast and sheer steel the proposed increase would be 92 per cent.; second quality, 120; extra, (axe temper,) 81; table blade, 136; common hoe and fork, 167; round machinery, 154; best German, 216; second quality, 241; best sheet, (cast,) 54; hoe and shovel, (cast,) 142; best quality blister, 103; second ditto, 211; gin saw steel, (best,) 87½, and second quality, 123 per cent.

FRENCH RAILWAYS.

A bill has been presented to the legislative body authorizing the construction of 25 railways, of a total length of 823 miles, which are to cost

£14,692,000. Amongst the number is the Paris Girdle Railway on the left bank, to cost £880,000. The expenditure upon French railways up to the end of last year has been, by the State, £32,440,000, and by companies, £152,000,000, making a total of £184,440,000. On the 1st of January of the present year the State had contracted to pay the railway companies £7,870,000, and the companies had undertaken works for railways already conceded to cost £57,320,000; and for lines to be hereafter conceded to cost £12,000,000.

HORSE RAILWAYS IN NEW-YORK.

In the official report of the New-York State Engineer and Surveyor, made to the legislature at its last session, are the following statistics respecting city railway companies. The figures are for the year ending September 30, 1860:

	<i>Passengers.</i>	<i>Receipts.</i>	<i>Expenses.</i>	<i>Dividends.</i>
Brooklyn City,.....	10,477,984	.. \$ 520,855 18	.. \$ 409,959 38	.. \$ 80,000
Eighth Avenue,.....	7,775,040	.. 388,750 20	.. 274,121 84	.. 120,000
Ninth Avenue,.....	1,984,341	.. 99,217 07	.. 70,958 72	.. .....
Second Avenue,.....	5,196,602	.. 263,061 73	.. 233,362 43	.. 52,000
Sixth Avenue,.....	7,398,908	.. 369,945 40	.. 261,698 64	.. 90,000
Third Avenue,.....	12,109,417	.. 610,597 17	.. 445,241 53	.. 122,850

SCINDE (INDIA) RAILWAY.

By advices from Kurrachee, dated 21st April, several heavy trains have passed over the railway with regularity and safety, some of them containing about 300 passengers. The line has also been used for the conveyance of troops, artillery carriages, military stores, and for Punjaub materials. The Parsees and other traders at Tattah, on the Indus, are forming branch establishments at the Joongshaei station, and the collector of the district is laying out the surrounding ground for building purposes. The Tattah traders also propose constructing, at their own expense, a branch or tramway to connect Joongshaei with Tattah. The company's steamer STANLEY was to leave the terminus at Kotree, on the Indus, for Mooltan, it being her first commercial trip, on 23d of April, taking first and second class passengers, with about 200 tons of cargo, receiving for the upward freight alone about £1,200. Cargo had been already collected at Mooltan for the return trip to Kotree.

ENGLISH ENTERPRISE IN INDIA.

The *Bombay Gazette*, of February 2d, gives a description of a stupendous railway enterprise in progress near that place, called the "Bhore Ghaut Incline," which, in other words, is an inclined railway on the Ghaut Mountains, believed to be the greatest undertaking of its kind in the world. This incline is an enormous mass of masonry, crowded upon an unhealthy, desolate and almost inaccessible mountain scarp. As showing the capabilities of English enterprise, it is specially noteworthy. On a recent excursion of the principal residents of Bombay to inspect these works, the chairman of the Bombay Committee of the Great Indian Peninsular Railway made a comparison with the celebrated Semring

Incline, on the railway between Trieste and Vienna, which is $13\frac{1}{4}$ miles long and 1,831 feet in height, whereas the Ghaut Incline is 1,831 feet higher from base to summit, and extends $15\frac{1}{4}$ miles. The number of laborers in constant employment on this work is from 40,000 to 43,000, and the amount of contract work performed in a single month has exceeded \$200,000, or £50,000 sterling.

RAILWAY PROGRESS IN INDIA.

The present financial difficulties of the railway companies, and the English demand for cotton, (says the *Friend of India*,) are calling attention to the state of the existing lines. The East Indian Railway, commenced in 1851, will probably be finished in 1865. The line will be opened as far as Bhagulpore, 264 miles from Calcutta, in about six months. The communication with Benares will be effected some time in 1862, and the line between Allahabad and Agra in February of that year. The link between Benares and Allahabad will be among the last to be supplied. Turning to the south, we find that the line eastward from Beypore will soon be completed to Parasanoor, a distance of 30 miles. Of the 405 miles from Madras to Beypore, 207 are open to Salem. The branch line, 84 miles, to Bangalore, leaving the trunk line 132 miles from Madras, is in progress. Nothing has yet been done to the branch from Coimbatore, 22 miles, to Metapolliem, at foot of the Neilgherries. The Madras and Bombay line leaves the main trunk to Beypore, $42\frac{1}{2}$ miles from Madras. Of its whole length, *via* Bellary, for 327 miles to Moodgul, where the G. I. P. line will meet it, $182\frac{1}{2}$ miles are in progress, and 17 are opened for traffic from the junction. Of the $335\frac{1}{2}$ miles of the Great Southern of India line, from Negapatam on the coast to Trichinopoly, $78\frac{1}{2}$ miles are in progress, and will be open about the middle of the year. Nothing has yet been done to the branch, for 87 miles, to Errode, to join the Beypore line, or to the branch, for 170 miles, *via* Madura to Tuticorin. Of the Great Peninsular Railway, 350 miles are now open. The Bombay and Baroda Railway is open from Lucheen, ten miles north of Surat, to Dolia, nine miles north of Baroda. The whole difficulty in the way of India supplying England with cotton is the want of easy and cheap means of communication between the interior and the coast. To this, more than to the establishment of societies for supplying seed and machinery to the ryots, should Manchester direct its attention. The Bombay government has deputed Captain ANDERSON to visit the great cotton districts of the Southern Mahratta country. He will be accompanied by a Bombay merchant. The supreme government are about to nominate an official for the same purpose from Calcutta, to begin his inquiries from Mirzapore, and extend them through Central India.

RAILWAYS IN INDIA.

The report on railways in India, for the year 1860, by Mr. DANVERS, the secretary of that department, has just been published. It appears that, on the 31st of December last, the number of miles open was 842, being an increase of 208 during the twelve months. Of these 842 miles,

100 are constructed with double and 742 with single lines of rail. The most important of the lately completed sections is that on the Eastern Indian Railway, between Cynthea and Rajmahal, Calcutta being thus connected with the Ganges, so as to render it possible for 250 miles of dangerous river navigation to be avoided. No new lines have been sanctioned during the year, and the Oude Company has been postponed; 227 miles of the East Indian Railway Company's scheme, (Allahabad to Jubbulpore,) 240 miles of the Punjaub Company's scheme, (Delhi to Lahore,) and 183 miles of the Great Indian Peninsula and Madras Companies' schemes, (Sholapore to Bellary,) have also been postponed. The extent of line now in course of execution is 2,932½ miles, of which 1,353½ miles are expected to be opened during the present year, and the remainder in 1862. This will include the great trunk line from Calcutta to Delhi. A scheme has been brought forward for a line into the Guicowar's territory, in connection with the Bombay and Baroda, and another to bring the French town of Karricall, on the coast of Madras, into communication with the Great Southern of India line. These, however, are foreign works, and the India government, although desirous of facilitating them, have no direct concern with them. The importance of constructing ordinary roads as feeders on the railway lines is engaging attention, and the Madras government has sanctioned the construction of forty-three roads, of an aggregate length of 1,083 miles. The annual earnings of railways, on the 30th of June last, were £318,310, and will probably amount to £400,000 for the year ending 30th June next; but, although the indications of traffic are satisfactory, the ultimate prospects cannot be estimated with accuracy until the entire cost of each line shall have been conclusively ascertained. Up to the end of last year the total number of shareholders in Indian railways was 17,118, of whom only 336 were native Indians. The latest estimates for the completion of all the lines sanctioned in India amount to £56,000,000, of which, however, about £7,000,000 represent the cost of the sections that are to be postponed, reducing the essential amount to £49,000,000. Of this sum, £34,396,444 had been raised up to the 30th ult., the end of the Indian official year, leaving about fourteen or fifteen millions to be supplied, of which at least £8,000,000 will be required for the twelve months ending the 30th of April, 1862. Of these eight millions six will be expended in India.

RAILWAY DIRECTORS IN FRANCE.

Accounts have been given of the prosecution of M. MILLAUD (formerly a partner of M. MIREX) and of Mr. STOKES, before the tribunal of correctional police, for alleged fraud in connection with the Nassau Railways; (a prosecution which ended in the acquittal of the former and the condemnation of the latter, by default, to five years' imprisonment;) also of actions brought against MILLAUD, before the civil courts, by shareholders in those railways, to get back sums which they had paid. Two days back four other persons brought a new action before the civil tribunal against MILLAUD, and also against General MOLINES DE SAINT YON, M. LEVY and M. CHEPPES, who had been, with him, directors of the Nassau Railway, to obtain restitution of the sums they had paid for shares, on the ground that they subscribed on an assurance that the company had

obtained from the Nassau government the guarantee of a minimum revenue of seven per cent., and that such statement was altogether false. The tribunal, after hearing pleadings, condemned all the defendants to reimburse the sums in question, and to pay interest at five per cent. on the amount. With regard to MILLAUD, who was the originator of the affair, the court ordered that if the restitution were not made without delay, he might be arrested and lodged in the debtors' prison.

THE QUALITY OF IRON RAILS.

Quality, not quantity, is the essential for economy in buying rails. How hard we have striven to impress this fact, so well known to every workman or employee on a railway, upon the hard heads of some managers. Now it is a fact, that rails costing eighty dollars per ton may be really cheap, while others costing twenty dollars may be actually very dear. There is the same difference in the quality of rails that there is in boots and shoes. An expert can readily detect the real value of rails, as well as some railway managers can tell the quality of a piece of roast beef or mutton they are masticating. Just remember this fact: there is no company so rich that it can afford to pay for poor material for the superstructure of its line. In England the necessity of employing good iron for rails is now so generally acknowledged, that, in order to insure a superior quality, one of the greatest railway companies have established works to manufacture their own iron, and another company, not less important, are just about to follow their example. In the United States, too, the managers of the best conducted roads do not scruple to pay from five to fifteen dollars per ton above the quoted market rates for rails. They find this is true economy, and so will the rest of them if they secure what they pay for—rails of the best quality. The heaps of refuse material which is rolled into the shape of rails, and peddled about the country at a low price, is just like PINDAR's razors—made to sell, not wear. Experts for the examination of rails can be had if the companies are willing to pay for the service they render; and let us assure our managers that they can afford to pay well for just this kind of information, or rather, they can't afford not to have the information, no matter what it costs to procure it.—*Railway Times*.

THE TEXAS AND NEW-ORLEANS RAIL-ROAD.

The Texas division of the Texas and New-Orleans Rail-Road has been completed to this city. The whole distance from Houston to New-Orleans is about three hundred and forty miles. Of this distance there are now one hundred and eighty miles of completed road, and forty miles more (Brashear to New Iberia) ready for the iron, leaving but one hundred and twenty miles to be built.

Houston, as the rail-road centre of Texas will, when the whole road is completed, pour a trade over it of enormous proportions. Already there are spreading out in four directions from it, rail-roads in the aggregate 280 miles in length, besides this under consideration, striking to the heart of the great sugar region, the great stock region, the great cot-

ton region, and ultimately the great wheat region of this State. Other roads are projected to become the channel of trade for all Eastern Texas, and all these roads must be the feeders of the New-Orleans road, when once it goes into operation. As the connecting link between the railroad system of Texas and the commercial metropolis of the Confederacy, the importance of this road cannot well be over-estimated.—*Houston Telegraph, May, 1861.*

THE LADRONE ISLANDS.

The Ladrone Islands comprise a group of not very extensive islands, some twenty or more in number, but situated so close together, that on approaching them they have the appearance of one large irregular island. Contrary to the general aspect of the Polynesian Islands, the Ladrone Islands present a rugged, gloomy appearance, dark, beetling cliffs rising to a towering height perpendicularly from the water's edge. The interior of the islands is, however, fertile in the extreme, the country being overrun with rank, luxuriant vegetation, differing singularly from the trim, neat manner in which Nature herself has decked the Society, Fiji and Friendly groups—for, strange to say, in these latter, however indolent and careless the natives, the soil always seems to be well cultivated, and vegetation trimmed to the perfection of neatness.

The Ladrone Islands were discovered by Magellan, in the middle of the 17th century, and were named from the Spanish word for thief, (*Ladrone*), in consequence of the thievish disposition of the inhabitants, though in reality they are no worse than their neighbors. They belong to Spain, though the Spanish government has made no use of them, and of late years has withdrawn the few civil and military settlements formerly maintained on the Island of Tinian. The natives appear to be a happy, careless, indolent, contented race of savages, apparently a cross between a Papuan negro and the Polynesian aborigines.

THE SOURCES OF THE NILE.

The *Levant Herald* says:—"Baron HOCHBERG, envoy from the Duke of Saxe-Coburg Gotha, who recently presented the Grand Vizier with the decoration from that prince, left during the past week for Alexandria, after himself receiving the third class of the Medjidieh. From Alexandria he proceeds, accompanied by six scientific fellow-travellers and an armed escort of thirty attendants, to explore the sources of the Nile. The Prussian government has placed a sloop of war in the Red Sea at the disposal of the party. The Baron has already made one journey to Soudan, and on this second expedition intends, it is said, to penetrate into a country which has been explored by no previous traveller."

THE AMOOR COUNTRY.

According to the report of Mr. COLLINS, the Amoor River has an outlet in the ocean, which can be entered by merchant ships and steamers, and it is navigable for steamboats more than two thousand miles from the Pacific Ocean. Already seven American commercial houses have

been established at Nicolaosky, the commercial port of the Amoor, with which there is now communication by means of ships and steamboats from the United States. It can be reached by steamboats in two days from Hakodadi and other ports in Japan, with which a profitable trade has already sprung up.

On the tributaries of the Amoor is a population of fifteen or twenty millions of people, inhabiting a vast and productive country, not destitute of wealth in material resources, and the valleys, watered by the Amoor, are rapidly filling up with the military colonies of Russia. There is a growing demand for the products of American industry and ingenuity.

EXPLORATION OF THE RED SEA.

A report was presented last week to the Academy of Sciences, on a paper sent in some time ago by M. COURBON, on the results obtained by him during an expedition sent to the Red Sea for scientific purposes by the Emperor of the French. M. ST. CLAIRE DEVILLE, who was the reporter for the geological part, stated that M. COURBON had minutely examined many parts of both coasts of the Red Sea, had also crossed the Egyptian Desert between Cosseir and the ruins of Thebes, and even penetrated to the neighborhood of the town of Halay, in Abyssinia. Of this country M. COURBON has made a highly interesting geological map, and, moreover, given a minute description of the configuration of the soil at Jeddah, the Island of Desseh and the Bay of Adulis, the Island of Doomairah, &c. At Edd he found an immense basaltic wall built by nature, the whole country being of volcanic formation. The Island of Perim is trachytic. The culminating points of the island reach an elevation of 228 feet, and prove that the island itself is the result of a volcanic eruption under the sea. The lava had first raised up the large bank of madrepores which covered the bottom, and had then forced its way through the interstices, and become visible over the water. This volcano, the vast crater of which embraced the Bay of Perim, in course of time covered the new island with mud, ashes, trachytic blocks; &c., and then became extinguished. M. VALENCIENNES, who reported on the zoological part, noticed among the specimens brought by M. COURBON a new species of the genus *gymnodactylus*. It is a Saurian, to which M. VALENCIENNES has given the name of *gymnocephalus*. There were also two species of fish, the *cyprinodon lunatus* and *cyprinodon dispar*, which M. COURBON had fished in a lake near Massuah, the waters of which marked as much as 111° of Fahrenheit. This was the first instance on record of *cyprinodons* living in such warm water. A third kind of fish inhabiting the rivers of Abyssinia, quite unknown, and belonging to a genus of which a single species only has yet been met with in Java, M. VALENCIENNES has called *balitora pusilla*. M. BROGNIART, the reporter on the botanical part, stated that M. COURBON had presented his valuable herbarium to the Museum of Natural History, and mentioned several new species or varieties of plants brought home by the enterprising traveller.

JOURNAL OF INSURANCE.

FIRE INSURANCE.

THE annexed table, compiled from a parliamentary return just issued, shows the amount of duty paid by the fire insurance offices of the United Kingdom during the year 1860. The total duty paid was £1,558,585 :

Sun, ...	£ 216,275	Kent, ...	£ 15,601
Phoenix, ...	188,578	Caledonian, ...	12,950
Royal Exchange, ...	86,682	Royal Farmers, ...	12,302
Norwich Union, ...	82,309	Hand-in-Hand, ...	10,490
County, ...	70,473	Scottish Provincial, ...	10,081
Imperial, ...	61,897	Birmingham District, ...	8,998
Liverpool and London, ...	60,952	Law Union, ...	7,196
West of England, ...	59,856	Essex and Suffolk, ...	7,120
Royal, ...	59,534	National, Ireland, ...	6,948
Alliance, ...	51,849	National, Scotland, ...	6,896
Globe, ...	45,858	Provincial, ...	6,594
Atlas, ...	45,727	Patriotic, ...	6,264
Manchester, ...	41,791	Queen, ...	6,251
Law, ...	35,938	State, ...	5,697
Guardian, ...	34,172	Midland Counties, ...	5,503
London, ...	33,620	Church of England, ...	5,370
Westminster, ...	33,053	Nottingham and Derby, ...	4,996
Union, ...	32,194	Salop, ...	4,088
Scottish Union, ...	32,001	Newcastle-upon-Tyne, ...	3,782
Leeds and Yorkshire, ...	27,588	Sheffield, ...	3,635
North British, ...	26,879	Norwich Equitable, ...	3,140
Lancashire, ...	24,698	Hants, Sussex and Dorset, ...	2,464
Yorkshire, ...	22,870	Equitable, ...	2,180
Northern, ...	21,841	Shropshire and North Wales, ...	2,061
General, ...	17,013	United Kingdom Provident, ...	1,398
Unity, ...	16,280	Emperor, ...	704
Birmingham, ...	15,925	Preserver, ...	24

LIFE POLICIES NOT SUBJECT TO FORFEITURE.

The following is an extract from the report of Hon. WILLIAM BARNES, Superintendent of the Insurance Department, to the legislature of New-York :

"The entire forfeiture of policies by the non-payment of premiums at a certain specified date has long been a serious obstacle to the increase of life insurance. The impolicy, if not the injustice of this provision, is practically acknowledged by nearly all the companies, and the forfeiture is seldom fully enforced. I cannot but regard it, therefore, as a matter of public congratulation that the New-York Life Insurance Company has issued a table of rates of premium for life policies expressly stipulating that after the receipt of two or more annual premiums, if further payments are discontinued, a new policy will be issued to the original holder, if living, for a specified proportion of the sum insured, or, if deceased, an equitable sum will be paid to his family or legal representatives."

THE GREAT FIRE IN LONDON.

The Phoenix and the Sun are the heaviest sufferers by the London fire of 22d and 23d June, the former to the extent of about £225,000, and the latter, we believe, not much short of that amount. The Alliance will, in all probability, be the third on the list of sufferers; and following, in respect of amount of loss, the order in which we place their names, the Royal, the London Assurance Corporation, the Royal Exchange, the Atlas, the Globe, and the Liverpool and London, form a group with the Alliance. A third group will be formed by the Manchester, the Northern, the Imperial and the Lancashire. From this point the losses, we have reason to believe, will be found diminishing in amount through the following series of offices: the Unity, the Union, the General, the Westminster, the Queen, the Leeds and Yorkshire, and the West of England, which last named company will be found to have "got out of the fire" with the comparatively small loss of about £5,000; and a less sum even than that will be found sufficient to discharge the respective liabilities of the Guardian, the Church of England, the Hand-in-Hand, the Law Union, the Royal Farmers, the Provincial Welsh and the Yorkshire. The County Office has entirely escaped, its business chiefly consisting of the insurance of private dwellings and the property they contain. The losses of the Law, in respect of the extent of its transactions, will, from a like cause, be found to be very light. The State, according to the declaration of its officials, stands at *nil*. The Scottish offices, namely, the Scottish Union, the Caledonian, the North British and the Scottish Provincial, had no primary risk on the property; but they will be sufferers, to some extent, by guarantee to other offices. The entire amount of loss sustained by the whole of the insurance companies may be estimated at £1,200,000, a sum that will probably not fall far short of the premium income of the present year; so that the richer class of companies will have to draw upon their reserve funds for the payment of all other losses of the year; whilst, in some few cases, in order to make provisions for such payment, it may be necessary, where the capital is not fully paid up, to make a call on the shareholders.—*Post Magazine and Insurance Monitor*.

FIRE-PROOF BUILDINGS.

The late gigantic fire at London Bridge has tested and found wanting our present system of fire-proofing warehouses. Party-walls of immense thickness, stone staircases, iron beams and pillars have been of no avail against the spontaneous combustion of a little heap of hemp; and the probability, indeed, is, that one of the most valuable lives in our working hive has been sacrificed to our latest notion of fire-proofing warehouses containing highly inflammable commodities. It is instructive to know that poor BRAIDWOOD to the last protested against the use of cast-iron in the construction of our river-side warehouses. In the paper he read at the Institution of Civil Engineers in 1849, "on fire-proof buildings," he denounced the use of this untrustworthy material in the most decided manner, and pointed out that some great calamity must inevitably befall the men of the fire brigade, sooner or later, in their attempts to extinguish the vast conflagrations which were likely to take place in those extensive buildings. His own destruction has been the first testimony to the

correctness of his views. The fire raging in one of these warehouses can only be compared to that of a blast furnace, and in consequence of the cast-iron pillars speedily become red-hot, the water from the hose falling upon these pillars suddenly contracts and snaps them like so much glass, and, of course, the floors fall in at once. There is another danger to those outside these warehouses. The massive girders of cast-iron supporting the flooring of course expand with the heat; and no walls, however strongly built, can possibly withstand their lateral thrust, and down they come, to the destruction of those near at hand. We have no doubt whatever that this was the cause of the falling of the wall which killed poor BRAIDWOOD. It was proved on the inquest that there was no salt-petre in this part of the building; it was also proved that no explosion took place here at all. It has been suggested that the walls were burst out by the swelling of the cotton bales, but it is quite needless to attempt such an explanation when we know the iron girders, heated to a white heat as they were, must have elongated nearly half a foot, pressing before them the solid wall.—*London Review*.

NEW INSURANCE LAWS OF MASSACHUSETTS.

The following is a list of titles of acts relating to insurance companies, &c., passed at the last session of the Massachusetts Legislature :

3. To continue in force an act to incorporate the Cambridge Mutual Insurance Company.

7. To extend and alter an act to incorporate the Union Mutual Marine Insurance Company.

9. To authorize the Hingham Mutual Fire Insurance Company to hold real estate.

14. Granting further time to the Suffolk Insurance Company to close its affairs.

17. To continue in force an act to incorporate the Weymouth and Braintree Mutual Fire Insurance Company in Weymouth.

19. Relating to the Springfield Fire and Marine Insurance Company.

45. To change the name of the Mechanics' Mutual Fire Insurance Company.

47. In addition to an act to incorporate the Arkwright Mutual Fire Insurance Company.

55. To reduce the capital stock and the number of the Directors of the National Insurance Company in Boston.

69. To incorporate the Fall River Mutual Fire Insurance Company.

72. In addition to an act to incorporate the Howard Fire Insurance Company.

101. To incorporate the Nonantum Fire Insurance Company.

117. Extending the time for paying in the capital stock of the Phoenix Insurance Company.

150. To incorporate the Cape Cod Mutual Fire Insurance Company.

152. Concerning the form of Policies of Fire Insurance.

170. In regard to agents of Insurance Companies.

185. To incorporate the Mutual Protective Fire Insurance Company.

186. To regulate the forfeiture of policies of Life Insurance.

189. Relating to the term of Insurance Companies.

JOURNAL OF NAUTICAL INTELLIGENCE.

PRICES OF IRON PROPELLERS.

A LATE number of the *Savannah Republican* contains an article on purchasing steamers, containing the following table, which is said to be "furnished by a leading ship-yard in Glasgow, Scotland, and may be relied on by those who would embark in the business."

GLASGOW PRICES OF PROPELLER STEAMSHIPS—IRON HULLS.

Length.	Breadth.	Depth.	Horse Power.	Draft.	Knots.	Coal per 24 hours.	Tons.	Bales.	Price.
284 ..	36 ..	25 ..	200 ..	14½ ..	9 ..	20 ..	1,808 ..	4,000 ..	£41,000
280 ..	33½ ..	25 ..	300 ..	15 ..	10 ..	25 ..	2,000 ..	4,000 ..	45,000
275 ..	36 ..	23 ..	250 ..	14½ ..	9½ ..	23 ..	1,780 ..	4,000 ..	42,000
252 ..	35 ..	24 ..	250 ..	14½ ..	10 ..	20 ..	1,500 ..	4,000 ..	34,500
260 ..	35 ..	23 ..	250 ..	14½ ..	11½ ..	18 ..	1,600 ..	4,000 ..	40,000

OFFER TO THE LIFE-BOAT INSTITUTION.

A gentleman has intimated his intention to bequeath to the National Life-Boat Institution £3,000, on the condition that the society will, on the receipt of his legacy, place a first-class life-boat, thoroughly equipped, on some exposed point of the English coast, and another on the Scotch coast, and will undertake thereafter to keep them permanently in a state of efficiency. He also stipulates, that in the event of his increasing his bequest to £4,000, a third life-boat, on the same conditions, shall be placed on the Irish coast. The National Life-Boat Institution has now 112 life-boats under its charge. The late Mrs. SHEDDEN WATSON has bequeathed to the National Life-Boat Institution £500, to enable it to plant an additional life-boat on the coast, to be called "The Brave ROBERT SHEDDEN." Mr. SHEDDEN, who was Mrs. WATSON's son, and was a lieutenant in the royal navy, had made a voyage around the world in his own yacht. Mrs. WATSON was, up to the period of her death, an annual subscriber of £10 10s. to the Life-Boat Institution.

NEW MODE OF PROPELLING BOATS.

An experiment of a very interesting character was tried in the docks of the Grand Surrey Canal, Rotherhithe, London. Mr. JAMES CARTER, a gentleman of a very ingenious bent in the application of mechanics, has for some years been elaborating a scheme of propelling river crafts of all sizes by atmospheric pressure. A discharge of air is effected beneath the vessel, acting downwards on the water and upwards on the sloping side of the boat, which is made flat for the better attainment of a due resistance. A crazy barge, of the "fly-boat" shape and capacity, was fitted up with boiler, engine and air-pump, got together

in haste, and but ill-adapted each to each. As for the engine, it was described as of "two cats' power;" and yet the force attained was sufficient to tow a heavy laden lighter. One evident and palpable recommendation of the machinery is, that its chief motive agent is exempt from wear and tear. There is no concussion, no friction of any kind in those parts immediately connected with the propulsion of the vessel.

INTERESTING TO YACHTMEN.

It will be seen by the following paragraph, from an English paper, that the grand British regatta of July next was open to comers from all the world:

"The Royal Mersey Yacht Club having decided on holding a general regatta on the 4th and 5th of July next, on the Mersey, her Majesty has graciously expressed, through her secretary, her intention of presenting a £100 cup to the club, to be sailed for by yachts belonging to any royal or national club. In other words, the competition will be open to all the world. A general subscription has been entered into by the members of the club, in order that the regatta may be conducted on the most liberal and extensive scale, and many liberal donations have already been received. A full programme will be issued in due time."

The Liverpool *Mercury*, of the 12th, published the following telegraphic despatch from the Board of Trade in London: "Hoist signal down—dangerous winds may be expected." Vessels did not leave port in consequence.

THE DERELICT ERIN-GO-BRAGH.

In the Court of Admiralty, Dublin, on the 11th March, 1861, a petition was opened on behalf of the association of Lloyd's Underwriters of London, which stated that, in the month of November last, L. M. WILSON, of Quebec, timber merchant, had shipped at Quebec a large cargo of timber, on board the ERIN-GO-BRAGH, of Liverpool, which, by the bills of lading, duly signed by THOMAS FLAVIOR, the then master, was consigned to the order of the shipper; and that, after having taken that lading, the bark proceeded in the prosecution of her voyage to the United Kingdom, and on that voyage became dismasted, and was abandoned at sea. The cargo having been insured at LLOYD'S, was paid for by them as a total loss; and the bills of lading thereupon endorsed to them, that body became the legal owners of the cargo, should it ever be recovered. It appeared that the vessel, after being abandoned, drifted towards the western coast of Ireland and was discovered; and eventually, after four days continued exertions, was brought in as a derelict by the ROVER, a steamer belonging to the Atlantic Steam Navigation Company. That steamer having commenced proceedings in the Court of Admiralty for salvage, the Queen, in her office of admiralty, intervened, assuming the property to be derelict, subject to the claims of the salvors and to all claims of rightful owners. The Queen's advocate now withdrew his opposition, and a decree for the plaintiff was consented to.

A NEW PIER AT SOUTHPORT, LANCASHIRE.

This pier was constructed at right angles to the line of promenade facing the sea, on an extensive tract of sand reaching to low water, a distance of nearly one mile. Its length was 1,200 yards, and the breadth of the footway was fifteen feet. At the sea end there was an oblong platform, one hundred feet long, thirty-two feet wide, at right angles to the line of footway. The superstructure was supported upon piers, each consisting of three cast-iron columns, and each column was in three lengths. The lowest length, or pile-proper, was sunk into the sand to the depth of seven or nine feet. These piles were provided at their bases with circular discs, eighteen inches diameter, to form a bearing surface. A gas-tube was passed down the inside of each pile, and was forced four inches into the sand. When a connection was made with the Water Company's mains, a pressure of water, of about fifty lbs. to the inch, was obtained, which was found sufficient to remove the sand from under the disc. There were cutters on the under side of the discs, so that, on an alternating motion being given to the pile, the sand was loosened. After the pressure of water had been removed about five minutes, the piles settled down to so firm a bearing, that, when tested with a load of twelve tons each, no signs of settlement could be perceived. The upper lengths of the columns had cast-iron bearing plates for receiving the ends of the longitudinal lattice girders, each fifty feet long and three feet deep. The centre row of girders having double the duty of the outside ones, top and bottom plates were added. The weight of wrought-iron work in each bay was four tons five cwt., and, of cast-iron work, one ton seventeen cwt. The second bay from the shore was tested by a load of thirty-five tons, equally distributed, when the mean deflection of the three girders, in twenty-four hours, was one and a half inches, and there was a permanent set of half an inch, on the load being removed.

The advantages claimed for this mode of construction were:—
1st. Economy in first cost, especially in sinking the piles, which did not amount to more than four and a half pence per foot. 2d. The small surface exposed to the action of wind and waves. 3d. Similarity of parts, thus reducing the cost to a minimum. 4th. The expeditious manner of obtaining a solid foundation—an important matter in tidal work. Two hundred and thirty-seven piles were thus sunk in six weeks.

The estimated cost of the pier and approaches was £10,400. The works had been completed for £9,319, being at the rate of £7 15s. 4d. per lineal yard. The pier was designed by Mr. BRUNLEES, *M. Inst. C. E.*, and the superintendence of the construction was entrusted to the author, as resident engineer; Messrs. GALLOWAY being the contractors.—*Proc. Inst. Civ. Eng.*, March 5, 1861.

THE DRUMMOND LIGHT.

We announced, some time since, that Professor GRANT had been employed by the government to erect one of his powerful calcium lights at Fortress Monroe, in order to shed light upon any nocturnal schemes that might be undertaken in that quarter. This is the most brilliant of all artificial lights, and will serve as a valuable agent even in war.

An improvement in the arrangement of the lime-points has lately been

patented by PROSSER & STANLEY, of London, for increasing the intensity of this light. It consists in arranging two lime-points opposite one another, towards the jets of flame, and they are made to converge toward a common centre, by being gradually pressed forward with a spring or a weight, to keep the points in contact when the flame impinges upon them. These lime cones are retained in tubes, and a fresh surface is continually presented to the action of the ignited gases.

The calcium light consists of a fine stream of hydrogen and another of oxygen gas, carefully brought into contact, and burned upon a piece of purified lime—fine chalk.

FRENCH WAR STEAMERS.

The armed steamship *SOLFERINO*, of 1,000 horse-power, and to carry fifty-two rifled cannon, was successfully launched at ~~l'Orion~~ on the 24th of June. The lines were designed by M. DUPUY DE LOME, and the ship built under the superintendence of M. DUCHALARD. This completes the six armored steam men-of-war which are actually afloat.

The armored frigate *HEROINE* is to be laid down on the slip from which the *COURONNE* was launched some time back. The *MAGENTA*, which was launched on the 22d of June, is 282 feet long, 52½ feet beam and 45½ feet in depth. The weight of the hull, when it left the slip, was 2,700 tons; when fitted with armor, engines and armaments, the weight will be 5,600 tons.

M. DUPUY DE LOME, Director of Naval Construction at the Ministry of Marine, has received orders from the Emperor to proceed on a tour of inspection of the naval ports of France. The *cadres* of the *personnel* of the navy are to be largely augmented, with a view to meet all future requirements.

The screw ship *MASSENA* left Toulon for the Hyeres station to try her engines for four days. The steel-plated frigate *NORMANDIE* is about to commence her trial trips at Cherbourg. The screw ship of the line *NAPOLEON* has returned to Cherbourg, after having made several successful trial trips with her new machinery. During her last trip, of thirty-six hours, she made thirteen knots an hour, with all her fires lighted, and 11.5 knots with only half her fires.

THE CREWS OF STRANDED VESSELS.

A series of exceedingly interesting experiments, having for their object the providing a certain means of communication between stranded vessels and the shore, as a means of preserving the lives of their crews at a time when communication by boat would be impossible, was brought to a close at Portsmouth recently, in a most satisfactory manner. The trials have extended over a period of some months, and the means proposed to be employed have been tested in every possible way by the gentleman who has suggested, in fact, carried it out at his own expense, Lieutenant G. S. NARES, senior lieutenant of Her Majesty's ship *BRITANNIA*, Captain ROBERT HARRIS, the naval cadet training ship in Portsmouth harbor.

Lieutenant NARES employs the common kite principle as his chief

agent; but while he sends his kite away to leeward, and consequently towards the shore, he retains the means on board the stranded vessel of bringing down the kite when flown sufficiently beyond the beach or over the cliff, so that the line attached to the kite may be hauled upon by the people on shore; and the end on board the vessel being attached to a hawser, and the latter, on reaching the shore, being hauled up the cliff, a means of escape to the crew and passengers, however numerous they may be, so long as the vessel holds together, or however violent may be the surf which intervenes between the ship and the land, is open to all, with the most perfect safety, by a boatswain's cradle, basket or slung cask being attached to the hawser, and hauled backwards and forwards by the people of the vessel and those on shore. To bring the kite to the ground, when sufficiently advanced beyond the face of a cliff or high-water mark, Lieutenant NARES has a second line attached to the right angle of the kite; holding on to this line, and letting go the flying line of the kite, the latter instantly capsizes and descends to the earth. This mode is applicable to the rescue of the crew of a vessel which has been driven well on shore, but is in a position, either from the surf or the formation of the coast, in which no vessel can approach her. Another mode in which this life-kite may be used is where it may be able to effect a landing on a beach to leeward, but the boats are washed overboard or stove, or the position in which the vessel may lie on a bed of rocks may render boats useless. In this case the flying line of the kite is attached by a toggle to the bung-hole of a cask, to a couple of breakers with a boat's mast lashed athwart them, or round a man's chest, with the knot between his shoulders; in either case the kite finds the supporting power, and conveys the object its line is fast to on shore, another line being attached to the cask, raft or man from the vessel, and the communication with the shore is complete.

The particular credit due to Lieutenant NARES consists in having, by his second line, devised a means of bringing a kite to the ground at the moment required, and in also making use of the kite in attaching its flying line to an object in the water, a carrier of his hawser's hauling line to the people on the shore. Kites have been tried before, but have failed for the want of these two great requisites. A few years since a vessel drove on shore on the Devon coast, close under the land. The captain sent up a kite, which flew over the people's heads on shore, but they had no means of reaching it, and the whole of the unfortunate crew perished in sight of the people on shore, who were there ready to aid them could the line from the kite overhead have reached their hands. Recently the brig *MERCY*, of Bristol, was wrecked at Porthleven, in Mount's Bay. A tremendous surf was running, but to save the crew it was necessary to form some communication otherwise than by boat. A cask was thrown overboard among the breakers, with a small line attached, and was, after great difficulty and risk of life on the part of the people on shore, got hold of, and a hawser hauled on shore, to which a swung basket was attached, and the crew were saved. In this case the kite would have conveyed the cask to the people on the beach without their having to risk their lives by running into the breakers and surf to lay hold of it.

The concluding experiments by Mr. NARES were made from Her Majesty's steamer *BULLFINCH*, Lieutenant JAMES. The *BULLFINCH*, on

this occasion, was six hundred yards from the shore, and the experiments answered perfectly. Lieutenant NARES has presented his plan to the Shipwrecked Fishermen's Society, and also the fifty guineas which had been awarded him.

CAUTION TO MARINERS.

New and Dangerous Bank at the Sulina Mouth of the Danube.—By an extract of a despatch of Her Majesty's Vice-Consul at Sulina, forwarded to LORD's by the government, it appears that a new and dangerous bank has formed off the Sulina bar of the Danube, and a caution is therefore given to masters of vessels to approach the bar with care, in order to avoid the shoals thereby created, and directions are given as follows to find the surest channel to enter the Sulina mouth of the Danube: "Vessels are on no account to approach the bar closer than one mile from the piers, or come into less water than five fathoms, without they get sufficient to the north to bring the light-house to show between the outer ends of the piers, bearing W. by S. half S. magnetic. Vessels must on no account attempt to go to the north of that line. As soon as circumstances will permit, a buoy will be placed on the northeast point of the bank."

DESTRUCTIVE STORMS IN FRANCE.

The *Moniteur de la Côte d'Or* states that the loss occasioned by the late storms in that department amounts to £144,000. In the department of the North and the Pas de Calais the crops have suffered. In the district of Dougny 400 hectares of wheat were injured, and the loss is estimated at £3,200. In Burgundy, the districts of Joigny, Auxerre, Sens and Tonnerre, the ravages have been very great. The value of the crops lost in Auxerre is estimated at £20,000, and in Tonnerre at £10,000. The *Moniteur de Calvados* estimates the losses in that department at £484,600. In the department of the Haute Garonne the rain and hail did great damage to the crops. In the district of Longages trees were blown down and the countryside desolated. It has been the same in the department of the Vosges, and in the Haute Loire the damage is estimated at £13,400. At Vitry, in the department of the Marne, so violent was the wind that it stripped the roofs of many houses, tore up large trees by the roots, and blew down the church steeple of La Chaussee. The rain resembled a waterspout, and was followed by a shower of such enormous hailstones that many persons who could not find shelter were seriously injured by them, and great numbers of hares, partridges and small birds were killed. The gardens, vineyards and cornfields over which the storm passed were ravaged, and all their produce lost. In the south of France storms were frequent. Aveyron, especially, had suffered much from hail. The Emperor has sent for the relief of the sufferers from the storm, £400 to the department of the Cher, £400 to the Marne, £1,600 to the Haute Marne, £1,200 to the Seine-et-Loire, £400 to the Cote d'Or, and £240 to the Allier. Letters from the departments contain fresh details relating to the terrific hailstorm which caused so much damage on the 22d June. At Touhan, near Lyons, the storm was so

intense that roofs of fifty and sixty feet long were stripped off houses, and the largest trees were torn up by the roots. At Saint-Seine and the neighborhood the hailstones lay so thick on the ground that a trustworthy witness asserts that he saw a bed of hailstones three feet thick on the road between Saint-Seine and Vaux-Saules. All the carriages travelling on the road at that time were overturned. The lightning at the same moment killed several horses in the fields. In the Yonne, on the same day, and at the same hour as in the Cote d'Or, the crops were totally destroyed in the districts of Soigny, Auxerre, Sens and Tonnerre. The appearance of the country is desolate. Vineyards are deprived of vegetation, gardens are laid waste and cornfields are ploughed up. The lightning, moreover, killed a number of cattle in that department. In the Nievre the wind and rain destroyed the growing crops, levelled more than 100 houses, and tore up thousands of trees, particularly in the neighborhood of Cosne. In the Allier three men were killed in the fields. Numerous rabbits and fowls perished in the poultry yards. The corn crops suffered great injury. The loss in that department is estimated at above 1,000,000 francs. In the Jura the hailstorm which was experienced on Sunday week laid waste eight communes in the neighborhood of Couliege. In the Marne numerous dwelling-houses were stripped of their roofs, church steeples were thrown down and several persons were injured. In the Rhone the commune of Chatelet escaped more serious injury by a heavy fall of rain, which dissipated the hailstorm. As a slight compensation, the hay crop is described as excellent throughout France.

SAN FRANCISCO HARBOR.

It is said that on the bottom of San Francisco harbor there are quantities of ship's chain-cables and anchors, which would richly repay any company who should set to work systematically to secure them by dragging. The deep ooze at the bottom furnishes a soft bed into which these heavy articles must long since have sunk, so that their recovery would be a work of great labor.

The *Alta* reports that Mr. MATTHEWS, the diver, who was employed to bring up the boiler of the steam-tug "DIANA," which exploded some time since off Vallejo-street wharf, succeeded in his task. A lighter was anchored near the spot from which he conducted his enterprise. The time he selected was dead low water, at which he succeeded in reaching and securing the boiler in four fathoms of water. It was hoisted into the lighter and conveyed to Stuart-street wharf.

A NAUTICAL SCHOOL IN NEW-YORK.

AN ACT TO ESTABLISH A NAUTICAL SCHOOL IN THE HARBOR OF THE CITY OF NEW-YORK. PASSED APRIL 15, 1861.

The People of the State of New-York, represented in Senate and Assembly, do enact as follows :

SECTION 1. There shall be organized and established in the harbor of the City of New-York a nautical school for the purpose of educating boys in the learning and duty of seamanship and the science of navigation.

SEC. 2. The said school shall be under the exclusive management and

direction of five trustees, to hold their office for the term of five years, and three of whom shall be designated and appointed by the Chamber of Commerce of the City of New-York, and two of whom shall be appointed by the governor. The term of office of the said trustees shall begin on the first day of May, eighteen hundred and sixty-one.

SEC. 3. The said trustees shall make such by-laws for the transaction of their business as shall be, in their judgment, expedient, and not inconsistent with the laws of this State, and shall determine the number, station, term of office and duties of the officers proper for the management of said school, and their compensation, and the manner and time of their appointment, and shall appoint the same.

SEC. 4. The said trustees shall have power to receive such funds or property as shall be subscribed, or loaned, or bequeathed for the organization or maintenance of said nautical school, and execute all necessary agreements for the faithful application of the same, and to receive such boys as shall be sent to said school by their parents or guardians; and all such boys, when so received into said nautical school, shall be subject to such regulations of conduct and discipline as, in the judgment of the trustees, are best adapted to their proper government; and the receiving and discharging of said boys shall be only in accordance with the by-laws and rules of said school, as may be by said trustees adopted.

They shall have control of the school-ship of said institution, and shall exercise, in relation thereto, and its care, supervision and management, all necessary powers and duties. They may also send any boy in education at such school on such voyage as they shall deem advisable for his proficiency and welfare, and may declare such sending a discharge of said boy from such institution. The trustees shall also determine what shall be the age at which boys may be taken into said school, with the consent of his parents or guardian, and under what circumstances fees for board in said school-ship, and education and tuition may be charged and taken, and the rates of said board and education and tuition, and to extend to persons qualifying for stations beyond ordinary seamen the advantages of such school.

SEC. 5. Whenever the trustees shall receive, in valid subscriptions, the amount of thirty thousand dollars, they shall proceed to organize the said school, and they may determine in what manner and at what time such subscriptions shall be paid, and may appoint a treasurer and determine his specific duties, and provide for the safe-keeping of the funds committed to his care.

SEC. 6. The said nautical school shall at all times be open to the inspection and examination of the State Superintendent of Public Instruction, and a full report of its affairs shall be made to said superintendent, at such time in the year as he shall designate.

SEC. 7. This shall take effect immediately.

NEW LIGHT-HOUSES IN EUROPE, &C.

BALTIC—GULF OF FINLAND.

New Light at South end of Hogland.—Official information has been received by the Light-House Board, Washington, that the Imperial Ministry of Marine at St. Petersburg has given notice that on and after the first day of August, 1861, a light will be exhibited from a light-house recently erected on the southern point of the Island of Hogland, in the Gulf

of Finland. The light will be a fixed *red* light. The illuminating apparatus is dioptric, or by lenses of the third order. The light-house is built of wood. Its exact position, height above the sea, distance at which the light is visible, and color of building, are not stated.

Also, that on and after the first day of July, 1861, the upper fixed white light on the northern hill of Hogland will be again exhibited, the repairs and alterations in the system of lighting being completed. The illuminating apparatus is dioptric, or by lenses of the first order.

Great Belt-Buoy near the Munke.—The inspector of lights and beacons on the east coast of Jutland has given notice that a red buoy, with staff and ball, has been placed near the Munke Shoals, between the islands of Seiero and Væro, at the northern entrance to the Great Belt. The beacon lies in $5\frac{1}{2}$ fathoms, at 170 yards E. by N. from the easternmost 18 feet shoals of the Little Munke. Hielm light tower bears N. $\frac{1}{4}$ W., Ellemand shill, N. W. $\frac{3}{4}$ N., northerly, and the north point of Væro, W. by N. $\frac{1}{4}$ N.

ENGLAND—SOUTH COAST.

Time Signal for Plymouth Sound.—For the purpose of giving Greenwich mean time to vessels desirous of ascertaining or verifying the errors and rates of their chronometers in Plymouth Sound, a time signal is daily shown at one o'clock P. M., by the instantaneous collapse of a cone suspended near the top of the flagstaff in the redoubt on Mount Wise, Devonport.

This time signal is not made as usual by the dropping of a ball, but by the collapse of a cone, which, when not in use, hangs in a closed state on the flagstaff. As a preparatory notice to the observer, at three minutes before one o'clock the cone is extended to its perfect shape, and at the instant of 1 P. M. of Greenwich mean time it collapses. Again, at two minutes later, it is once more extended; and at the instant of 1h. 5m. P. M. it again collapses. The second collapse is made in order to verify the first, or in the event of its not having been noted by the observer.

The instant of Greenwich mean time is obtained by means of a chronometer, brought from the observatory of Mr. Cox, optician, in Fore-street, Devonport, by whom it is compared, immediately before leaving, with a good regulator clock by ARNOLD; it may, therefore, be fairly depended upon to within one or two seconds of time. This time signal is not made on Sundays; and the present arrangement is only temporary until a connection is established by electric telegraph with the royal observatory at Greenwich.

The cone is of canvass, $4\frac{1}{2}$ feet in diameter, and painted black. It is suspended below the flag on the flagstaff, at an elevation of 175 feet above the mean level of the sea, and its collapse may be seen from most parts of Hamoaze, over the whole of Plymouth Sound, and from those parts of Catwater used by sea-going ships. It may also be seen in clear weather with a glass at a considerable distance outside of Breakwater, when bearing between N. by W. and N. by E.

Mount Wise is the general signal station of the port, and may be known by its southern green slope; also from its proximity to St. Stephen's church, which has a remarkable sharp spire. The position of the flagstaff on the Mount is in lat. $50^{\circ} 22' N.$, long. $4^{\circ} 10' 15''$, or 16m. 41s. west of Greenwich.

JOURNAL OF MINING AND MANUFACTURES.

A NEW DESCRIPTION OF GUN FOR GOVERNMENT.

THE Mersey Steel and Iron Company of Liverpool have just completed two guns for the government of an entirely new design as regards shape. They are constructed of wrought iron, and manipulated by the tilt hammers. They are 9 feet 6 inches in length, and in shape are about double the thickness from the butt to the trunnions, where they suddenly taper to the muzzle. In weight they are about 4 tons 3 cwt., and although only 6½ inches in bore, they are intended for 100 lb. shot. They are evidently intended as an experiment, as the venting and sighting are to be completed at Woolwich. One of the guns has already been despatched. The external portion of them is highly polished, which in some measure shows the excellent texture and quality of the metal. It has been suggested that the government have been induced to give this order to the Mersey Steel and Iron Company from the fact that, at the testing of the 4½ inch wrought iron plates at Portsmouth, those sent by this company far exceeded in strength all the others, one plate having received 17 shots without any material injury.

ORDERS FOR NAVY SHOES.

The *Shoe and Leather Reporter* says that the contract to furnish the United States marine corps with 6,000 pairs of sewed bootees, more or less, was awarded for the current year to HENRY NEWTON, of North Weymouth, Mass., at \$1 87½ per pair. Our cotemporary adds:

This rate was much less than that of last year, which was \$2 30. The standard is a high-cut sewed shoe, both upper and sole being made of oak-tanned leather. The rate of this contract was considered very low at the time; but the great decline in prices of all kinds of stock and work now makes it very remunerative. Mr. NEWTON employs about 300 men, and is turning out from 1,500 to 1,800 pairs of shoes per week.

The contract for low-cut shoes, for sailors' use, was awarded to a Philadelphia house, for one year from July 1, 1861. The rate we have not learned, but it was probably somewhat under that of the previous year, which was about \$1 42. These shoes are all first-class, no others being accepted.

Great corruption has at times existed in the marine department, and third and fourth quality shoes have sometimes been used; but the efficiency of the present quartermaster of the marine corps, W. B. SLACK, has remedied these evils.

THE INTERNATIONAL EXHIBITION OF 1862.

The ground is broken at Kensington towards erecting the series of buildings required for a great international exhibition to be held next year. A deed of guarantee upon the security of the names appended, to which the Bank of England will advance a quarter of a million of money for the necessary expenses, is in course of signature. It already bears the

names of persons who have made themselves liable for a sum of £243,000; others have yet to sign who will bring up the total to £383,000. The charter of incorporation has been issued, and in little more than twelve months from the present time we shall probably be in a position to announce the opening of the great exhibition of 1862.

The building for the display of 1862 differs in many essential particulars from its predecessor. It will be much larger, more commodious, much more imposing in its exterior, while from without its aspect will be of almost impressive magnitude and grandeur. Glass and iron are no longer to be the chief features in the design. Externally they appear only to be used where lightness with ornamental effect is needed; and, therefore, when they are introduced with these ends in view they are managed with a good taste and architectural effect which, viewing the design as a whole, makes it one of the most beautiful of the kind that has probably ever been reared. This remark as to the comparatively limited use of iron and glass of course applies only to the exterior. The inside, as heretofore, will be entirely fitted with iron columns and girders, but arranged in more gothic form and style, and with a keener view to picturesque effect than in 1851. The exhibition building of 1851 occupied in all nearly 23 acres; that about to be erected will cover a little over 26. The flooring space in 1851 was just short of a million feet. In the proposed building there will be 1,140,000, but, as it is intended to exhibit machinery and agricultural implements in a wing especially built for the purpose, the space occupied in 1851 by these classes will be at the disposal of the commissioners for other works, so that practically there will be some 500,000 feet of flooring more in 1862 than in 1851. The greatest height in 1851 was 160 feet, and the main nave running from end to end was 60 feet high by 72 wide. The greatest height of the proposed building will be 260 feet, and the nave will be 1,200 feet long by 85 wide and 100 feet high. The total length of the first exhibition building was 1,800 feet by 400 broad. The dimensions of the present are to be 1,200 long by 700 broad, exclusive of the space set aside for the display of agricultural implements, which is, in rough numbers, 1,000 feet long by 220 broad. The contractors' price in 1851 was £80,000; in this instance, £200,000, though in reality it will cost £300,000, but the payment of the extra £100,000 is conditional on the gross profits exceeding £500,000, as they did in 1851.

The building will be erected at Kensington, in front of the new grounds of the Horticultural Society, which they will enclose. Externally the building will be 1,200 feet by 700, though the ground plan shows that in some parts the width is diminished to 500 feet. The average height will be 100 feet, nearly 60 of which will be solid brickwork.

A Resolution relative to the exhibition of the industry of all nations, to be holden in London in the year eighteen hundred and sixty-two.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the President be and he hereby is authorized to take such measures as shall to him seem best to facilitate a proper representation of the industrial interests of the United States at the exhibition of the industry of all nations, to be holden at London in the year eighteen hundred and sixty-two; and the sum of two thousand dollars is hereby appropriated for the incidental expenses thereof.

Approved July 27, 1861.

SUBSTITUTE FOR PLUMBAGO.

In a paper presented to the Royal Society by Professor CRACE-CALVERT, an interesting discovery was announced—that from cast-iron a substance is procurable which is a substitute for plumbago. The professor soaks cubes of cast-iron in weak acid—vinegar being the most suitable—until the iron is dissolved out and the carbon remains. By this process the cubes lose in weight, but not in dimension, and retain their form unaltered; but the quality is changed, and it is as easy to draw lines with one of them as with a lump of plumbago.

CALIFORNIA ACADEMY OF SCIENCES—COAL.

We learn from the *Mining and Scientific Press*, (California,) that a meeting of the members of the above institution was held in San Francisco on the 15th of May, at which Professor BLAKE gave an interesting description of the coal regions of Monte Diabola, accompanied with specimens of the coal. The veins are rather thin, but the coal is good bituminous. The fossils of the region belong to the tertiary formations.

Professor WHITNEY is of opinion that the coal was formed from accumulations carried by eddies and deposited in still water.

A considerable quantity of this coal has been taken to San Francisco, and it has tended to reduce the price of wood and the foreign coal. A plentiful supply of wood and coal in California would tend greatly to facilitate quartz-mining, by enabling the machinery to be operated by cheap steam power. Coal will also make California a great manufacturing State.

BORAX MINERAL.

Among the minerals found associated with the native copper of Lake Superior is one very hard and white, resembling marble, called "massive datholite," first noticed by Professor T. D. WHITNEY, in SILLIMAN'S *Journal of Science*, in 1859. It contains over 20 per cent. of boracic acid, and will, therefore, prove valuable for the manufacture of borax. Experiments recently made by Dr. KEEF, and repeated by Dr. HAYS, of Boston, prove that this mineral may even take the place of borax in many most important applications, without any previous chemical change. This might have been inferred from the fact that it contains nearly one-half as much pure borax as is found in the commercial boracic acid.

ALUMINUM IN GREENLAND.

The Edinburgh *Courant* states that two Danish vessels have sailed from Leith for Greenland, for procuring cargoes of cryolite—the mineral from which aluminum is obtained in largest quantities. Several very valuable minerals are obtained from Greenland. Plumbago is abundant in these regions; but the cryolite is the most important of Greenland's products, because aluminum is daily increasing in favor, as a most beautiful metal, capable of superseding silver for many purposes.

IRON PLATES FOR IRON-CLAD SHIPS.

An enormous furnace is erected, in which the iron is heated into a molten mass, and thence conveyed by steam-power in a truck on a tramway to the rollers, between which it is drawn out to the proper size and consistency. Previous to this, however, the metal has had to undergo an elaborate process. Originally each plate consists of 96 pieces, each about $\frac{1}{4}$ inch thick, and these are welded together one after another till they form either two or four solid lumps. In this state they are put into the furnace, and when the plate finally comes out from between the rollers it is only $4\frac{1}{2}$ inches thick. The power of resistance of such a dense mass of metal must be immense. Of course, the iron used is the very best. A plate of eight feet by six feet weighs about three tons.

The making of these plates has just been commenced in Sheffield, England, by Messrs. JOHN BROWN & Co., at the Atlas Steel and Iron Works, being the first manufacture of the kind in Sheffield. We understand that the plates were previously made at the Pargate Iron Works. Messrs. J. BROWN & Co. have been entrusted by the British government with a very large contract for the construction of these plates for the armor-clad war ships.

THE MAUVE AND MAGENTA COLORS.

This general term originates in the name of the inventor, Mr. W. H. PERKINS. In it are included Mauve, Magenta, Solferino, Azaleme, Roseine, Violine, Fuchsiacine, and those other beautiful varieties of color which are produced by our dyers in silk, wool or cotton.

We never before possessed any tint in which there was so much depth or intensity, with so little of that glare which becomes offensively obtrusive. The colors, too, are absolutely new; they are neither the rose, the violet, the peach, nor the blossom in which our mothers prided, but they are those with something superadded. The dyed surface has a power peculiarly its own, of separating two or more rays from the source of all color, light, and of sending them off in a most harmonious combination.

The Mauve and Magenta are permanent colors. Light does not bleach them; the weaker acids do not stain them; the color is dependent on the oxidation of the base of it; whereas, in nearly all other colors, the action of oxygen is to destroy the color.

CANADIAN TIMBER FOR FRANCE.

A contributor to the January number of the "*Annales Forestieres et Metallurgiques*," a Parisian magazine of a semi-official character, writing under the heading of "*Les bois de Canada*," speaks of the decline of the timber exports of Norway, and of the impossibility of obtaining from thence the wood necessary for manufactures in France, and says:

"Everybody knows that our former colony is, so to say, a vast forest of four thousand leagues square, possessing as means of transit magnificent lakes and rivers, and in which whole armies of wood-cutters, or 'lumber-

ers,' as they are called, cut down every year from eight to ten millions of cubic metres of timber, the greatest part of which is exported to the United States, and more particularly to England."

He goes on to argue in favor of exchanging for Canadian lumber the staple products of France, her wines, her porcelain, her silks, woollens and cottons, and above all, her "*tabac-de-caporal*," which, he remarks, is "the delight of French Canadians."

THE TELEGRAPH IN PERSIA.

In a late number of a Persian newspaper called the *Vekaya* we have an account of the opening of a telegraph line (MORSE's) between Teheran, the capital of Persia, and Tabreez, on or near the Urumia lake, four hundred miles distant. It follows the route of caravans. The inauguration came off on the 21st of January last, on the esplanade of the imperial palace, in the presence of the young sovereign, NACIR EDDINE, all the dignitaries of the court and thousands of spectators. Questions were sent to Tabreez, and, when answered, the replies were repeated aloud amidst the joyous cries of the people and salvos of artillery. News that required twelve days ordinarily for transmission now came in a few minutes, much to the astonishment of the enthusiastic and wondering Persians. This miracle has been brought about by the Minister of Public Instruction, who is the uncle of the Shah, and by the director of telegraphs, ALI-KOULI-VEKAN, both of whom were publicly honored on the spot with princely robes, India shawls, daggers ornamented with diamonds and the cordon of the lion. We presume our friend MORSE will in due time receive his share of the honors from NACIR EDDINE SHAH.

BASSWOOD.

In the United States, basswood is used to a considerable extent for seats of chairs, insides of drawers, parts of fanning-mills, and many other uses for which it is better adapted than almost any other wood. It is both light and strong, works easily and is not apt to split.

Basswood is one of the most abundant woods in Canada, but it has so far received little or no attention in commerce. The Quebec *Advertiser* urges that efforts be made to promote the export of basswood lumber, and also the manufacture for export of wooden-ware made from basswood.

In England a great business is carried on in the manufacture of white-wood ware, or Tunbridge-ware, and for such purposes, any wood which will "dry white" is used—the principal kinds being "chestnut"—i. e., horse-chestnut, a very different wood from the common chestnut, (*castanea vesca*)—and lime, or, as we call it, basswood. Referring to this, our Quebec contemporary considers that a good business might be done in exporting this wood to England.

For use in wooden-ware this wood must not be exported in logs, as in that state it can only be employed for the upper timbers of houses, ships, etc. But it must be exported in the shape of boards, inch, half-inch,

and even as thin as the eighth of an inch, for veneering. The great object is to get the wood to dry white, and to secure this, it must be sawn quite fresh, and before the sap has had time to ferment, and thus discolor the wood. The boards are taken from the saw-mill or pit as fast as they can be cut, hung up under shelter from the rain, in an open shed, with a free draught of air, (not in piles,) until so thoroughly dry that there is not the least probability of their becoming mildewed. There would be still more profit to the Canadians if they themselves should convert their basswood into articles of wooden-ware, with which Canada probably could supply the world.

FRENCH SCHOOL OF ART.

The French Central School of Arts and Manufactures is a remarkable one, and deserves a notice at length. It is under the direction and patronage of the State, and requires three years attendance from each pupil. The conditions under which a youth is admitted are strict enough, and occupy four columns of the *Moniteur*. We imagine there is not a professor in the best of our colleges who could pass the requisite examination to enter this school, so extensive, minute and difficult is the programme. None but a most skillful algebraist, geometrician, (descriptive, analytic, &c.,) architect, mathematician, draughtsman, physiologist, physician, chemist, anatomist, understanding all the divisions of each branch of these sciences, (more than four hundred in number,) must write on these various subjects, and also be examined orally to the satisfaction of the examiners. The whole expense of tuition is seven hundred and seventy-five francs per annum, and foreigners as well as natives are admissible. The questions in chemistry alone would puzzle our best instructors, and as to physiology, we think a good many clever men would find it difficult to explain clearly and promptly the questions. Division of functions, absorption and exhalation, digestive apparatus, the chemistry and mechanism of digestion; apparatus of circulation, its mechanism; the lymphatics, the respiratory apparatus, its mechanism and chemistry, its phenomena, animal heat, (the theory of this not yet settled,) structure and functions of the principal glands, structure and functions of the nervous system, structure and functions of the organs of sense, the vocal apparatus, osteology, structure and chemical composition of the bones, their articulation; the skeleton, the muscular system, structure and functions; classification of the animal kingdom, divisions, special characters of mammals, birds, reptiles, fishes, insects, annalides and acphala; botany, roots, branches, leaves, flowers and fruits, and elucidations of the natural method of Jussieu, are some of the divisions of one branch of inquiry. And yet young men as low in years as seventeen are expected to afford the greatest number of applicants for admission to this very school. This subject is suggestive—very.—*N. Y. Evening Post.*

CHAMBERS OF COMMERCE AND BOARDS OF TRADE.

Monthly Meeting of the Chamber of Commerce of New-York, Thursday, August 1st, 1861.

THE regular monthly meeting was held Thursday, PELATIAH PERIT, Esq., President, in the chair.

Mr. JOHN EWEN, President of the Pennsylvania Coal Company, and Mr. ROBERT H. MCCURDY, of No. 45 Park Place, were elected members of the Chamber.

In the absence of Mr. OPDYKE, Chairman of the committee appointed to wait upon Congress with the memorial passed at previous meeting, Capt. MARSHALL stated that he had a conversation with the Secretary of War, who said he had already sent his engineers to New-York to ascertain what was necessary to be done.

Ocean Mail Steamers.—Mr. DAVID OGDEN moved that the President be authorized to sign the following memorial:

To the Hon. MONTGOMERY BLAIR, Postmaster-General of the United States:

The undersigned, members of the Chamber of Commerce of the city of New-York, respectfully represent that it is highly for the interest of the commercial community of this city that the mails from this country to Europe be transmitted by the steamers of the Ocean Steamship Company, which make their passage in the shortest time and with the greatest certainty. They therefore respectfully request that the Postmaster-General of the United States will cause such mails to be transmitted by the steamers of whichever company is able to make the most expeditious as well as reliable mail service.

Mr. A. A. Low objected to the Chamber committing itself upon this subject, as the course suggested might prove very detrimental to our own steamers. It was by large subsidies from the British government that the CUNARD line was enabled to keep up the fastest ocean steamers, and it was their boast that they had driven off our steamers by such means. It was notorious that the fastest vessels could be run only by aid of government patronage. The effect of this resolution would be to throw the whole mail service into the hands of the British steamers, and to take off entirely American steamers, of which we had but very few, and they not well sustained.

On motion of Capt. MARSHALL, the memorial was laid on the table, to be taken up at a future day.

Revenue and Internal Tax Bills.—Mr. A. A. Low offered the following:

Whereas, The government of the United States is engaged in a contest for the suppression of rebellion and for the maintenance of the integrity of the Union, which is destined to make a large demand upon the pecuniary resources of the country, and the demand must chiefly be met by means of repeated loans:

Resolved, That in the judgment of this Chamber, the success of the proposed loans will depend upon the enactment by Congress now in session, of revenue and internal tax bills adapted to the existing emergency, or that of the government; or that if the government should succeed in procuring money without making wise provision for the reimbursement of principal and interest, it will be upon terms discreditable to the national name and prejudicial to the national interest.

It was in view of the reluctance of many members of the Senate to pass the tax-bill now before them that he (Mr. Low) offered his resolution. There seemed to be a much greater willingness to spend the public money than to be taxed for its repayment, and he hoped that this expression of opinion, going from the Chamber of Commerce, would stimulate Congress to pass a bill that would establish the national credit.

Mr. R. LATHERS approved of the motion, and wished to amend by appointing a committee of five to present the resolution, and aid Congress in the supervision of any bills before them for revenue and internal tax. In the hurry of legislation he feared that a great many crudities would be incorporated in the measures now before Congress. It was proposed to impose an income tax—a measure never resorted to, even in Europe, except as a last resort. He considered that that bill, as reported, would work a great injustice to the mercantile community, and to those who depended upon their salaries for a support, while (as evidently was intended) it would free the western lands and property generally in the interior.

Mr. ROYAL PHELPS doubted the policy of sending committees to Congress, except on important subjects, and such as were intimately connected with the business of the Chamber. When too frequently sent, they lost their force and were not well received.

Mr. Low thought that if the Chamber could not give a free expression of opinion on subjects so important to commercial interests it had better disband. The Chamber of Commerce, representing the commercial community, should say to Congress that if they wanted an extraordinary amount of money, there must be some measure passed that looked to payment, and thus support conservative action on the part of the government.

Mr. JONATHAN STURGES hoped the resolution would pass for the purpose of encouraging Congress to enact the tax bill.

Mr. S. DE WITT BLOODGOOD said this was an eventful moment in our history, and we should live or die by our valor and money. With all respect for the gentlemen composing the government, he did not think they were more learned or careful than men not in the administration; nor did he think the exertions of the Chamber of Commerce would fall to the ground. He had studied its history, and always found that the merchants of New-York had been foremost in support of every project for the glory and interest of the country. Whether received well by politicians at Washington or not, New-York was the bank from which the money must come, and why should not those who were ready to sacrifice lives and fortunes be heard? He thought that the merchants ought to express themselves freely.

The amendment by Mr. LATHERS was lost, and the resolution by Mr. Low was carried.

Mr. C. H. MARSHALL moved the following amendment:

Resolved, That, in the opinion of this Chamber, the tariff bill now under consideration of Congress should be framed so as to produce revenue only, and without regard to protection.

He thought that on many articles the duty was so great as to amount to a prohibition. Certainly such a tariff would diminish instead of increasing the revenue.

Mr. SAMUEL HOTALING opposed the resolution, stating that the great

productive interests of our country required protection and the fostering care of government, and it was difficult to draw a line between a tariff for revenue and one for protection. Any measure would be unhealthy which did not have in view the development of the manufacturing and agricultural resources of the country.

The resolution passed, and was ordered to be forwarded, together with Mr. Low's resolution, to Congress.

The Chamber then adjourned.

Special Meeting, Wednesday, August 7, 1861, of the Chamber of Commerce of New-York, for the reception of Hon. J. A. WRIGHT, formerly Governor of the State of Indiana, and late United States Minister to Prussia.

The Chamber of Commerce, August 7th, gave a reception to Hon. JOSEPH A. WRIGHT, of Indiana, late minister to the court of Prussia, which was attended by a large assemblage of members.

PELATIAH PERIT, the president, occupied the chair, and introduced ex-Governor WRIGHT, who was received with applause.

He said the Chamber of Commerce was known for its patriotic course all over the world. He had returned to his native land after an absence of four years. He belonged to an old school of politicians, who acknowledged only the sovereignty of the government. That government had protected him at home and abroad, and to it he owed his allegiance. This was no time to talk politics or criticize administrations. The sole question now is, "How shall the government be preserved?" The government is misrepresented abroad, and our institutions are attacked by the foreign press, influenced by mercenary men. The heart of Germany, he said, was slow to move, but when the popular heart was really enlisted in a subject, there was no people more efficient in aiding a cause. All through Germany he had found a strong feeling in favor of this country. He had received not less than five hundred letters from different persons desiring to come to the United States to help them, and he had to put up over his door that he did not keep a recruiting office. After a four years' residence, he had come to the conclusion that the German government was making faster strides toward free institutions than any other in Europe, and that they look to the condition of our national Union probably with a deeper interest than any other country.

The speaker continued: I do not think I am going out of my position by mentioning that when I left his majesty, the King of Prussia, his last words to me were these: "*God grant that you may be able to sustain the laws and the institutions of your country.*" That is the sentiment of the German nation. Do not misunderstand me. From the connection of that government with the other governments of Europe, you must not look for them to lead off before others. There is a jealousy in the governments of Europe against us. You may have other enemies to fight than those of your own country. Be not too cheerful; this contest for human liberty and for the principles of your fathers will meet with enemies abroad, under one name and another. All I can say is, that we have got to help ourselves if we expect others to help us. If you expect

any enlightened aid from the governments of Europe, you have got to show firmness, energy and victory in this country.

If, in my intercourse with foreign governments, I have learned any one fact, it is this, that, as I have been taught from my childhood, and as we are so fond of repeating but often overlook, that in our union is our strength. You know that in the government of Prussia there has been some difficulty in reference to the protection of American citizens from impressment into the army, but always when their release was asked as American citizens they were given up. But no sooner had these difficulties come on than I received information every day of the impressment of these men. But when the month of May came around and showed the union of the loyal people of this country, then I could see the feeling rising there, as plainly as the mercury in a thermometer might be seen to rise, that there was a government on this side of the water for which they had a respect. It is within the last few months that the law was made, that the government would claim no control over a person who should be absent from that country ten years, though he returned. I name these things to show that in our union consists our strength.

After these remarks permit me to say, that if we desire or expect encouragement or aid from the governments of Europe we have got to show them that we have strength at home. You may conceive my mortification when I received the news of what was supposed to be our disaster in Virginia. I believe there is not a government of Europe that has had a contest with her own people that has not been beaten at the first battle. I have surveyed the whole ground, and have come to the conclusion that this calamity has been sent us that we may know where is our weakness and where our strength. I regard it as calculated to nerve and incite our people to powerful efforts in behalf of the government, and to show us where our real danger is. You may ask me the question, What is to be the result of this? What is our duty? You have called me here—you must take my opinion. I speak as an American citizen; you may take it for what it is worth. The Southerners may say, as ABRAHAM said to Lor, "Let there be no strife between us, between my herdsmen and thy herdsmen; turn thee to the right or left, as it pleaseth thee." I apprehend old ABRAHAM would never have given this advice to Lor had he interfered with his household, and attempted to tear down the ark of the covenant.

We say now, Give us back the government of our fathers, put back the old flag upon the forts, let the laws have supremacy, and then we will talk about going to the left or to the right; then we will hear; but we will hear nothing from those who are attempting to pull down the pillars of the temple that was reared by our fathers. You may ask, What will be the result of this? How is it our duty to act? I know one thing I can do. I go home to fill my place as a Western man. I go home forgetting every thing but my country. I go home saying, as I say to you, that we ought to be willing to suffer and lose millions of money and many lives, sooner than submit to this infamous slander of the so-called president of the Confederate States, that your fathers and mine formed a confederation of States to be broken up at the word of disappointed politicians, without self-preserving power in the government. I belong to that class of men that have been taught from childhood—and if there is any thing I believe it is this—that we never can be two peoples—we are one or we are nothing.

I believe we can never have peace except as one people. I am willing to give my voice and means, and the influence of whatever position I may be placed in, to maintain the supremacy of the Constitution and the laws of the country, and I shall not ask, What is to be the result of this? when I see my country divided, and when I see an effort made to destroy this government, the only hope of humanity.

Mr. President, I have witnessed, during my absence abroad, the effect of this secession movement, and I never have believed, in the midst of all these difficulties, that there existed any serious division among the people of this country, when left to themselves, in relation to the principles of our government. We talk of the United States flag, and I have seen many incidents showing the love of its countrymen for it; but a scene that most touched me was one in the city of Berlin, where a dying mother, with an infant at her breast, when her husband and child were before her, said, as a last request, "Bring me the flag and wrap it around me, that I may die in it." Do you tell me of a people that have this love and respect for their flag, that you can crush out this love by any mercenary motives? You may say, standing by the wayside, I have lost all I have in the world; you have lost nothing if you have your government; your property, your wife, your children are nothing in comparison with your country, the hope of humanity every where. Do not tell me you have lost your thousands; give it all freely, as you have done, to your credit.

You are known every where for your liberality, and our three hundred thousand men will never come back until this government is sustained, unless this is the merest myth of a government that ever existed. To sustain that flag let your money, your capital, be pledged; and continue to show the stability, the sternness, the decision that the association you so worthily represent has shown. Let consequences take care of themselves. As has been well said, "One man right, and heaven on his side, will whip the world." It is a majority for one man to be right. We know we are right; we know our path of duty; we know every step we have to take, and, with steady nerve, all we have to do is to march on, until we shall establish the laws of this country and sustain the supremacy of our institutions. I am willing to celebrate the anniversary of my country, the Fourth of July. I am willing to hold in reverence many days bright in our calendar, but a brighter day will be that when we have peace in our country. But pray God let it be a permanent peace; let it be a peace established upon principles, and never may it come at the sacrifice of the principles of our fathers.

On motion of Mr. GALLATIN, a vote of thanks was passed to Governor WRIGHT for his able and patriotic address.

Most of the members were then introduced to Mr. WRIGHT, after which the meeting dispersed.

FOREIGN CORRESPONDENCE.

OF THE MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW.

LONDON, August 3, 1861.

THE chief topics of moment during the past month in this metropolis have been the war in America, the new loan for India, the bank rate of discount.

The directors of the Bank of England, at their meeting, August 1st, reduced their *minimum* rate of discount from 6 per cent., at which it was fixed on the 16th May, to 5 per cent. This reduction had been generally anticipated, from the large amount of gold daily sent into the Bank, the reduced price of money and its abundance in the open market, and the generally inactive state of trade. The movement, therefore, produced no effect on the value of the funds. The joint-stock banks have reduced their interest on deposits to 4 per cent., (at the London and Westminster, 3 per cent. on sums below £500,) and the discount houses to 4 per cent. for money at call, at $4\frac{1}{2}$ with seven days' notice. The inquiry for money at the reduced rate has been somewhat more active. Some of the leading discount houses are charging 5 per cent., but other establishments are taking first class bills at $4\frac{1}{2}$ and $4\frac{3}{4}$. The rate of interest now adopted by the Bank is the same as prevailed in April (five per cent.) and November, 1860, when the bank reserve of bullion was much larger than it is now. There has been a gradual reduction in the bullion fund from eighteen millions sterling, at the close of the year 1858, to £12,196,000 at this date. In the year 1859, this reserve ranged from £18,560,000 at the opening, to £16,250,000 at the close; the rate of interest at both periods being $2\frac{1}{2}$ per cent. In the year 1860 the range was from £15,350,000, at the opening, gradually down to £12,580,000, at the end of December; the rate of interest rising in the mean time from 3 to 6 per cent., and Consols falling from 95 to $92\frac{1}{2}$ in the London market.

Notwithstanding the conservative management of the Bank of England, the Bank of France has, during the same period of three years, exhibited a stronger position, viz.:

BANK OF ENGLAND.		Rate of Disc.	BANK OF FRANCE.	
	<i>Bullion.</i>			<i>Bullion.</i>
1858, December, ...	£18,920,000	 $2\frac{1}{2}$	.....	£21,030,000
1859, April, ...	17,640,000	 $3\frac{1}{4}$	.....	21,750,000
“ July, ...	17,940,000	 $2\frac{1}{2}$	.....	22,400,000
1860, January, ...	15,880,000	 3	.....	21,370,000
“ April, ...	14,640,000	 5	.....	21,410,000
“ November, ...	13,310,000	 5 and 6	.....	17,830,000
“ December, ...	12,650,000	 6	.....	17,260,000
1861, February, ...	11,570,000	 $8\frac{1}{2}$	.....	15,114,000
“ August, ...	12,196,000	 5	.....	15,500,000

While the London rates of discount range from $4\frac{1}{2}$ to 5 per cent., on the Continent money is much cheaper, as may be seen by the following quotations from nine cities :

	<i>Bank Rate of Discount.</i>	<i>Open Market Rate.</i>
Paris,.....	5 per cent.	4½ per cent.
Vienna,.....	6 “	5½ “
Berlin,.....	4 “	2½ “
Frankfort,.....	3 “	2 “
Amsterdam,.....	3 “	3 “
Turin,.....	5 “	5 “
Brussels,.....	3 “	3 “
Hamburg,.....	“	2½ “
St. Petersburg,.....	7 “	.. “

The British Board of Trade returns for the month of June, 1861, show that the exports of home produce and manufactures for the month were again upon a much larger scale than could have been expected, reaching £10,362,893, which is more by 12 per cent. than in the same month of last year, though less by 3 per cent. than in June, 1859. For the first six months of the present year the total has been £60,143,425, being only 3 per cent. less than last year, and 4 per cent. less than in 1859. The export trade with the United States is shown to be now completely paralyzed; but the falling off in that direction is fully compensated by an increase in other quarters. With regard to imported commodities it appears that the arrivals of grain, although excessively large, were not quite so heavy as in the preceding month. Their value, including all descriptions, may be estimated at upwards of £3,500,000, while that of the May importations was about £4,000,000. During the first six months of the year, the returns for which are now completed, our importations of grain of all kinds have amounted to about £21,000,000, against about £9,500,000 in the corresponding half of 1860. As respects the consumption of other articles of food and luxury, the figures for the month of June show a falling off under every head except those of cocoa and wine.

The exports of British and Irish produce and manufactures for the month and for six months of three years have been as follow :

	<i>Month of June.</i>	<i>Six Months.</i>	<i>Average.</i>
1859,.....	£ 10,665,891 ..	£ 63,003,159 ..	£ 10,500,526
1860,.....	9,236,454 ..	62,019,986 ..	10,336,664
1861,.....	10,362,893 ..	60,143,425 ..	10,023,904

The British navigation accounts show that 929,055 tons of shipping entered British ports during the month with cargoes, against 831,379 tons in the corresponding period of last year. Of 378,637 tons under foreign flags, 130,278 tons belonged to the United States, showing, however, a decrease under the stars and stripes as compared with 1860. The increase took place under the British, Swedish, Norwegian, Prussian, Hanseatic and Greek flags. Of the total tonnage entered 182,155 tons, irrespective of nationality, arrived from ports of the United States, the next largest amounts of tonnage being from Russia, India and Canada. Of 1,027,076 tons cleared outwards, with cargoes, 145,806 tons cleared for French ports, the next largest amounts of tonnage having cleared for Baltic and North Sea ports, India and the United States. The coasting trade shows 1,429,964 tons of shipping entered inwards with cargoes,

including their repeated voyages, about one-third of the whole being engaged in the intercourse between Great Britain and Ireland.

An official statement lately published of the value of the exports from the twelve principal ports of the United Kingdom during the past year shows the relative progress or retrogression in the trade of each. The aggregate increase is 4 per cent. over 1859, but some ports figure for a more considerable augmentation, and others exhibit a falling off. The export trade of London presents an increase of a $\frac{1}{4}$ per cent.; Liverpool, $4\frac{1}{2}$; Hull, $11\frac{1}{2}$; Bristol, $7\frac{1}{4}$; Southampton, $6\frac{1}{2}$; Leith, 18, and Glasgow, $\frac{1}{4}$. Newcastle has been stationary. The ports that show a diminution are, Dublin, 24 per cent.; Cork, $18\frac{1}{2}$; Greenock, 48, and Belfast, 92. The totals of the two latter, however, in 1859, were exceptionally heavy, and the present falling off is merely a return to about their ordinary amount. Subjoined are the exact returns:

Declared value of British and Irish Produce and Manufactures exported from the respective ports to Foreign Countries and British Possessions abroad in the years,

	1859.	1860.		1859.	1860.
London,...	£ 30,235,924 ..	£ 30,837,688	Glasgow, ..	£ 5,394,376 ..	£ 5,406,410
Liverpool, ..	62,414,341 ..	65,419,782	Greenock, ..	1,106,268 ..	572,702
Hull,.....	12,980,587 ..	14,487,676	Dublin, ..	48,270 ..	22,192
Bristol,...	457,553 ..	491,192	Cork, ...	168,252 ..	136,698
Newcastle, ..	1,906,514 ..	1,903,488	Belfast, ..	141,175 ..	10,283
S'tham'ton, ..	2,499,369 ..	2,662,076			
Leith,.....	872,673 ..	1,080,680	Ag'rogate, ..	£118,225,302	£ 122,960,817

Manchester is uneasy under the present prospect of the cotton supply. The secession movement in your States finds some sympathy among manufacturers here, but the tone of public sentiment, both in London and throughout England, is clearly with the Northern States. Mr. JOHN BRIGHT, M. P. for Birmingham, addressed a public meeting at Rochdale on the 1st inst., when, in the course of his remarks, he alluded to the cotton supply question and to the civil war in America, expressing the most profound sympathy with our transatlantic kinsmen in their efforts to maintain the Union and enforce constitutional law. Such views, from a man of his prominence, have great weight. Toward the close of his remarks he said, in reference to recent propositions in England to violate the American blockade in consequence of its reported inefficiency:

"Now, recollect what breaking the blockade means. It means a war with the United States; and I don't think myself that it would be cheap to break the blockade, at the cost of a war with the United States. I think that the cost of a war with the United States would give, probably, half wages for a very considerable time, to those persons in Lancashire who would be out of work if there was no cotton, to say nothing at all of the manifest injustice and wrong against all international law, that a legal and effective blockade should be interfered with by another country. It is not exactly the business of this meeting, but my opinion is, that the safety of the products on which this country depends rests far more on the success of the Washington government than upon its failure; and I believe nothing could be more monstrous than for us, who are not very averse to war ourselves, to set up for critics—carping, cavilling critics—of what the Washington government is doing. I saw a letter the other day from an Englishman, resident for 25 years in Philadelphia, a merchant there, and a very prosperous merchant. He said, "I prefer the institutions of this country (the United States) very much to yours in England;" but he says also, "If it be once admitted that here we have no country and no government, but that any portion of these United States can break off from the central government whenever it pleases, then it is time for me to pack up what I have,

and to go somewhere where there is a country and a government!" If the 33 or 34 States of the American Union can break off whenever they like, I can see nothing but disaster and confusion throughout the whole of that continent. I say that the war, be it successful or not, be it christian or not, be it wise or not, is a war to sustain the government and to sustain the authority of a great nation; and that the people of England, if they are true to their own sympathies, to their own history, and to their own great act of 1834, to which reference has already been made, will have no sympathy for those who wish to build up a great empire on the perpetual bondage of millions of their fellow-men."

The differences in the market price of cotton, on the first of this month, as compared with the same period of 1856 to 1860, are shown as follow :

COTTON.	1856.	1857.	1858.	1859.	1860.	1861.
Upland, fair,.....	6½ ..	8½ ..	7½ ..	7½ ..	6½ ..	8½
Upland, good fair, 6½ ..	8½ ..	7½ ..	7½ ..	7½ ..	7½ ..	8½
Pernambuco,.....	7 ..	9½ ..	8½ ..	9½ ..	9½ ..	9½

So that, notwithstanding the reduced supply, prices are now about the same as in 1857. The sales of cotton for the week are 70,000 bales, of which 49,000 are to spinners, 12,000 to speculators, and 9,000 bales for export. Under the influence of alarming news from America, the sales of the preceding week amounted to the enormous quantity of 144,000 bales; of which the spinners took 87,000 bales.

There is at last a decided fall in the stock of cotton at Liverpool, the diminution, though long foreseen, not having previously been at all considerable. This will be seen on reference to the subjoined table, which commences with the month of April, when the American blockade was first threatened :

Stock.	1861.		1860.	Stock.	1861.	1860.
	Bales.		Bales.		Bales.	Bales.
April 5,....	942,330	....	906,040	June 7,....	1,148,650	 1,358,630
May 3,....	990,690	....	1,016,630	July 5,....	1,108,300	 1,298,490
" 24,....	1,111,510	....	1,200,730	" 12,....	1,102,600	 1,227,990
" 31,....	1,151,010	....	1,295,570	" 19,....	1,053,710	 1,287,520

In the sixteen weeks over which these figures extend the stock has thus been augmented to the extent of 11,380 bales, while at the same period of 1860 it increased to the extent of 381,480 bales. Last year's was, however, a heavy crop in the United States, and but for the uncertainty attending the future, the stock now in hand would be considered sufficient for all practical purposes. The stock was made up in the following proportions in the first and last weeks embraced in the return :

	Stock, April 5.		Stock, July 19.
	Bales.		Bales.
American, ...	790,570	....	798,660
Surat, ...	95,040	....	187,740
Brazil, ...	16,590	....	22,310
Egyptian, ...	37,600	....	43,570
West Indies, &c., ...	2,530	....	1,430

The Jamaica Cotton Company have, we understand, directed a quantity of Egyptian seed to be forwarded to Jamaica immediately, having learned from their agent that the peasantry there are extremely anxious to plant cotton with their provisions, but find it difficult to get sufficient seed, so much has been planted. He states that in three weeks' time he has cleared and planted forty acres of cotton, and corn with it, and

fenced in, for planting, six hundred acres—the last at an expense of only £1. He pays 6d. and 9d. a day for women, and 1s. per day for men, and has had to turn away hundreds who applied for work. A gentleman who has been for many years a cotton planter in the Southern States gives the price of a day's labor for a slave, when hired out, 75 cents, or about 3s. 2d. per day; whereas, in Jamaica, the average cost is 1s.

Grain Market.—The aggregate value of the grain importations of the first half of the present year may be estimated at £21,000,000, against £9,500,000 in 1860. Of this total, about £14,500,000 represents wheat and flour—our importations of which, in the same period of 1860, were below £3,000,000. In 1859 France sent us our chief supplies, and contributed about as much as Russia, Prussia and the United States combined, while, from America, the amount was merely nominal. In 1860 Prussia took the lead, Russia was second, and the quantity from France was insignificant. This year America has distanced all other countries, and has sent us nearly as much as Prussia, Russia and France combined—the quantity from the latter being less even than in 1860.

The monthly grain circular from Odessa, under date July 19th, says: "The arrivals of wheat from the interior have continued, during the whole month of June, to be very large, but the condition is unfortunately not much improved. Before these can be made fit for shipment, the products of the new harvest will arrive, and there is no doubt that they will depreciate the value of the old."

The reduction of the wine duty in Great Britain has hitherto proved a great success, the consumption averaging about 1,000,000 gallons per month, against 600,000 gallons at the old duty. It was anticipated, and very reasonably, that the introduction of claret and other light wines at a duty of 1s. per gallon, while sherry, port, Marsala, &c., paid 2s. 5d., would create an enormous demand for these wines; but the public appear pertinaciously to adhere to their former tastes, and of a total of 5,400,000 gallons cleared in the five months ending 31st May, only 570,000 represents those wines cleared at the duty of 1s.; it is therefore clear that hitherto common French and German wines have not made much impression.

Trade in France is still dull. There is no demand except for articles wanted for immediate use, and there is consequently much uneasiness prevailing among the manufacturing population. This state of things is attributed to the cessation of foreign orders, particularly from the United States. The harvest prospects are not satisfactory. Flour is one franc per sack higher in Paris. Accounts from Bordeaux state that the vineyards present a magnificent appearance. The grape is filling, and the crop will be abundant, except in those districts injured by the frost. The loss, however, is not so great as it was represented by interested speculators. The plethora of capital in France is evidenced by the fact that the applications for £6,000,000 French railway debentures last week amounted to ninety-five millions sterling. The total allotted to the public is £3,700,000, and the remaining £2,300,000 is allotted to claimants with exclusive rights. The Paris correspondent of the *Times* says: "Accounts from the manufacturing districts state that French manufacturers in general are severely affected by the suspension of their relations with the United States since the civil war broke out there. They have, in consequence, reduced their hours of labor, much to the loss of their opera-

tives. The manufacturers have adopted this prudent measure, fearing that one of the effects of the civil war will be that many houses in the great towns of America may think it advisable to suspend payment. On the other hand, the Paris papers, which are supposed to represent the sentiments of the government, assert that trade in France has revived considerably within the last three months."

The *Journal de Cherbourg* states, that it is contemplated to establish a strategic railway along the coast, so as to make it possible to transport a large body of troops to any part of the coast where the enemy might attempt to land. The paragraph proceeds: "By means of the electric semaphore telegraph, which already encircles our coast, the movements of the enemy may be instantaneously made known to the naval arsenals; the establishment of such a railway would complete the system of defence, and protect our coast against a *coup de main*."

An important commercial treaty between England and France has gone into effect this year. Treaties with other powers are in contemplation. The treaty of commerce between Great Britain and Turkey, which is to come into operation on the 1st of October, has been laid before Parliament. Turkish produce and manufactures purchased by British subjects are to be liable to no duty except an export duty of 8 per cent., diminishing annually by 1 per cent., until it be reduced to a fixed *ad valorem* duty of 1 per cent., to cover the general expenses of administration and control; and the produce and manufactures of Her Britannic Majesty are not to be subject in Turkey to any duty beyond an import duty of 8 per cent., but the import of tobacco or salt is prohibited. There is to be no differential duty on British shipping. The duty of 3 per cent. now levied on articles passing through Turkey by land to other countries is to be reduced to 2 per cent., and after eight years is to be merely 1 per cent. to defray the expenses of registration. No charge is to be made on British produce or goods in British ships passing through the Straits. The "most favored nation" clauses are inserted.

Punch omits no opportunity for a *drive* at a friend or an enemy. He says: "We doubt if the slowest of slow coaches would ever be able to arrive at any satisfactory conclusion as to whether the Galway Steam Packet Company has made less way in the public estimation with its *LEVER* or its (S)crew."

We have received from the custom-house authorities at Canton, through H. T. DAVIES, of Shanghai, returns of the trade of Canton for 1860. The following is a summary of the whole:

GENERAL IMPORTS.

First half-year, 1860, ...	\$8,819,760 at 4s. 6d. —	£2,094,693
Second " "	9,592,967 at 4s. 8½d. —	2,259,050

GENERAL EXPORTS.

First half-year, 1860, ...	\$5,579,112 at 4s. 9d. —	£1,325,039
Second " "	10,678,511 at 4s. 8½d. —	2,513,899

The trade is carried on by 66 British vessels, with a tonnage of 36,028; in 25 American vessels, aggregate tonnage, 20,236; in 46 sundry vessels, tonnage, 16,898; and in river steamers and lorchas.

The London fire insurance offices have adopted their new scale. In many cases it is higher; the rate for each of the docks, for instance, having been raised from 3s. 6d. to 10s., and for general floating policies

from 10s. 6d. to 35s. per cent. These terms, however, are subject to reductions, in the event of certain requirements being complied with for the improvement of risks, and which are modeled very much on those compulsory at Liverpool. It is stated that in London, while the average of premiums on dock and warehouse policies has been 5s. 6d. per cent., the average of losses has been 12s. 8d. per cent. The increased scale applies to ships in port.

The suspension has been announced of Messrs. ROCCA BROTHERS, an old and well-known mercantile firm, with establishments in London, Naples, Marseilles, Odessa and Genoa. The house has been for two or three months in liquidation, but up to the present time all its engagements had been regularly met. Another failure in the Australian trade is announced, the firm being that of Messrs. W. J. & H. MILLER, of Cannon-street, London. The stoppage has been caused by that of their house at Melbourne, Messrs. MILLER BROTHERS. The liabilities are probably not less than £50,000.

COMMERCIAL CHRONICLE AND REVIEW.

BUSINESS OF THE MONTH.—IMPORTS.—EXPORTS.—EXPORTS AND PRICES FOR JULY.—RATES OF MONEY.—SPECIE.—SPECIE SHIPMENTS.—BANK MOVEMENT.—THE NEW TARIFF OF AUGUST, 1861.—EXTRAORDINARY INFLUX OF SPECIE.—LOW RATES OF FOREIGN BILLS.—HEAVY RECEIPTS OF FLOUR AND GRAIN.—COMPARATIVE PRICES.

THE war movements of the month of July continue to affect business operations throughout the country at large. The imports for the month of July at this port were only one-sixth of those for the corresponding month of 1860, while the foreign exports of domestic produce continue large.

The leading feature of the month has been the negotiation of one hundred and fifty millions in behalf of the Treasury Department. This was done through a convention held between the 10th and 17th instants, of the banks of the cities of New-York, Philadelphia and Boston.

The following plan "for assisting the United States Government" was unanimously adopted:

SECTION 1. An immediate issue to be made by the United States Treasury Department of Treasury notes, dated August 15th, 1861, bearing interest from that date at 7.30 per cent., to the extent of fifty millions of dollars.

SEC. 2. The banks of New-York, Boston and Philadelphia associated to take jointly this fifty millions at par, with the privilege of taking at par an additional fifty millions October 15, by giving their decision to the department October 1; and also at par fifty millions December 15, by giving their decision December 1, unless said amount shall have been previously subscribed as a national loan. It being understood and agreed, that no other Government stocks, bonds or treasury notes (except treasury notes payable on demand, and the Oregon War Loan,) shall be negotiated or paid out by the government until February 1, 1862, should the associates avail of both privileges, or until December 15, 1861, should they avail of the first only, or until October 15, 1861, if they take but the present fifty millions—except that the government may negotiate in Europe, or through subscriptions to the national loan.

The capital of the banks of New-York, Boston and Philadelphia, and the respective proportions under a *pro rata* division, would be as follow :

	<i>Bank Capital.</i>	<i>Pro rata proportion of 50 millions.</i>
New-York,.....	\$ 70,000,000	 \$ 29,500,000
Boston,.....	38,000,000	 15,500,000
Philadelphia,.....	12,000,000	 5,000,000

It was proposed and finally agreed that the division should be—

To New-York,.....	\$ 35,000,000
To Boston,.....	10,000,000
To Philadelphia,.....	5,000,000

All the banks of this city promptly ratified the agreement ; and subsequently those of Boston and Philadelphia assented. The ability of these institutions, with sixty-five millions of specie, to sustain this important movement, is unquestioned. It is obvious that the money which the government receives is to be spent at home, and thus will not disturb the foreign exchanges. It is to go out at once into the general circulation of the country, in payment for services and merchandise ; and, paid to one man, it passes quickly to others. The movement by which it is set in motion is simply a mercantile undertaking on a vast scale, which is to be confined to our own limits, and to give to our own people all its advantages. Indeed, this is peculiarly true so far as New-York and New-England are concerned ; for such is the amount of supplies which must be drawn hence, and the number of our troops now in the field, that the amount expended by the government at the North is likely to more than equal what is raised here. These considerations, coupled with the fact that the balance between Boston and New-York, is heavily in favor of the latter, are sufficient to answer all doubts, as to the ease with which our banks can undertake an operation to the extent of one-fourth of their capital and one-sixth of their loan.

The strength of the New-York Banks is indicated by the following summary :

1861.	<i>Loans.</i>	<i>Specie.</i>	<i>Circulation.</i>	<i>Deposits.</i>	<i>Weekly Clearings.</i>	<i>Sub-Treasury.</i>
Jan. 5,	\$129,625,465	\$24,839,475	\$8,698,283	\$86,454,430	\$ 95,994,868	\$ 3,645,500
Feb. 2,	121,907,024	31,054,509	8,099,376	87,879,743	122,138,525	4,328,000
Mch. 2,	121,893,963	34,480,407	8,290,755	89,635,298	126,728,832	9,166,030
Apl. 6,	122,113,496	41,705,558	8,930,141	94,859,810	123,277,671	8,486,494
May 4,	124,610,166	38,054,254	9,296,399	94,977,381	106,413,316	9,761,752
June 1,	118,290,181	37,502,402	8,683,780	90,197,459	88,847,249	11,468,789
July 6,	112,134,668	45,630,025	8,862,799	90,579,753	88,313,230	4,616,620
Aug. 3,	111,719,111	46,226,181	8,585,574	92,229,384	81,415,525	6,738,059
Aug. 17,	108,717,434	49,733,990	8,521,426	92,046,308	80,172,670	4,380,239

We annex the ruling rates for business paper at this date, as compared with the last week in April, May and June :

	<i>May 22.</i> <i>per cent.</i>	<i>June 24.</i> <i>per cent.</i>	<i>July 24.</i> <i>per cent.</i>	<i>Aug. 24.</i> <i>per cent.</i>
Loans on call, State stock securities,.....	5½ @ 7	5 @ 6	5 @ 6	4 @ 5
“ bond and mortgage,.....	8 @ 9	6 @ 7	6 @ 7	6 @ 7
Prime endorsed bills, 60 days,.....	7 @ 10	6 @ 7	5 @ 6	6 @ 7
First-class single signatures, 4 to 6 months,...	8 @ 10	8 @ 12	7 @ 9	9 @ 10
Other good bills,.....	10 @ 12	12 @ 15	9 @ ..	@ ..
Names less known,.....	15 @ 30	no sale.	no sale.	no sale.

The new features of the tariff went into operation from the time of its passage. We give the bill entire, for the benefit of our readers, in this number, pages 235-256. The following section, we fear, will give trouble

in some cases, in discriminating between goods shipped on board the same vessel before and after the 5th day of August, when the tariff was passed :

SEC. 5. *And be it further enacted*, That all goods, wares and merchandise actually on shipboard and bound to the United States, and all goods, wares and merchandise on deposit in warehouses or public stores at the date of the passage of this act, shall be subject to pay such duties as are provided by law before and at the time of the passage of this act.

The imports for July from foreign ports show a total of only \$3,191,920 dutiable goods entered directly for consumption ; and, including seven millions of specie and three millions of free goods, the aggregate for the month is less than fifteen million dollars.

FOREIGN IMPORTS AT NEW-YORK IN JULY, 1858-1861.

ENTERED.	1858.	1859.	1860.	1861.
For consumption,.....	\$ 14,013,659 ..	\$ 21,681,460 ..	\$ 18,759,905 ..	\$ 3,200,663
For warehousing,.....	2,949,166 ..	3,943,374 ..	4,462,475 ..	1,769,636
Free goods,.....	1,506,027 ..	1,486,147 ..	1,594,918 ..	2,972,054
Specie and bullion, ...	36,895 ..	175,139 ..	64,351 ..	6,996,498
Total entered,.....	\$ 18,505,747 ..	\$ 27,286,120 ..	\$ 24,881,649 ..	\$ 14,938,851
Withdrawn,.....	3,164,538 ..	2,595,063 ..	3,593,993 ..	6,622,454

The official tables show that the foreign imports at this port, exclusive of specie, since January 1st, are only \$85,891,561, against \$141,847,307 for the same period of last year, and \$155,149,912 for the same period of 1859. In this connection it will be interesting to compare the progress of the trade during the last seven months with the same period in former years, in regard to other particulars, and for this purpose we have separated the receipts of foreign dry goods from the imports of general merchandise :

FOREIGN IMPORTS AT NEW-YORK FOR SEVEN MONTHS, FROM JANUARY 1ST, 1858-1861.

ENTERED.	1858.	1859.	1860.	1861.
For consumption,...	\$ 50,334,179 ..	\$ 113,511,023 ..	\$ 98,705,594 ..	\$ 35,191,920
For warehousing,...	15,185,419 ..	23,209,758 ..	25,377,377 ..	30,441,676
Free goods,.....	12,955,525 ..	18,429,181 ..	17,765,566 ..	20,257,965
Specie and bullion,...	1,815,258 ..	1,301,082 ..	751,188 ..	32,906,166
Total entered,...	\$ 80,290,381 ..	\$ 156,450,994 ..	\$ 142,599,725 ..	\$ 118,797,727
Withdrawn,.....	25,076,502 ..	14,110,784 ..	17,909,650 ..	25,996,550

The extraordinary feature as to specie exceeds any previous period in the history of this country. The dry goods for the past seven months are very limited, although the import of general merchandise is less than in the year 1858 :

Relative Imports of Dry Goods, Specie and General Merchandise at New-York for the first Seven Months of the last Eleven Years.

Seven Months of	Imports of Dry Goods.	Imports of Gen'l Mds.	Imports of Specie.	Total Imports.
1851, ...	\$ 42,240,217 ..	\$ 43,174,714 ..	\$ 1,480,476 ..	\$ 86,895,407
1852, ...	34,994,294 ..	37,215,342 ..	2,028,248 ..	74,237,884
1853, ...	57,421,619 ..	59,393,895 ..	1,099,516 ..	117,915,030
1854, ...	55,308,993 ..	58,126,642 ..	1,606,090 ..	115,041,725
1855, ...	34,724,393 ..	49,008,832 ..	523,151 ..	84,256,376
1856, ...	60,296,946 ..	72,757,795 ..	963,500 ..	134,018,241
1857, ...	66,716,293 ..	84,156,030 ..	5,857,310 ..	156,729,633
1858, ...	30,169,358 ..	48,305,765 ..	1,815,258 ..	80,290,381
1859, ...	71,782,984 ..	83,366,928 ..	1,301,082 ..	156,450,994
1860, ...	63,362,687 ..	78,485,850 ..	751,188 ..	142,599,725
1861, ...	31,515,606 ..	54,375,955 ..	32,906,166 ..	118,797,727

The cash duties received at the port of New-York, during the month of July, have been less than for the same period of previous years; they are reckoned, of course, upon the goods thrown on the market. We annex a comparative summary :

CASH DUTIES RECEIVED AT NEW-YORK.

	1858.	1859.	1860.	1861.
In July,.....	\$3,387,305	\$4,851,243 89	\$4,504,066 04	\$2,069,590 86
Previous six mos.,	11,089,112	19,512,181 99	18,339,679 30	10,585,334 95
Total since Jan. 1,	\$14,476,418	\$24,363,428 88	\$22,843,745 34	\$12,654,925 81

The exports show some very singular changes. The most noticeable features are, of course, the great increase in shipments of produce, and cessation in shipments of specie. During no month of the year has this been more noticeable, although we are now comparing with a period of last year when the exports of produce on a large scale had commenced, and were rapidly assuming very large proportions :

EXPORTS FROM NEW-YORK TO FOREIGN PORTS FOR THE MONTH OF JULY.

	1858.	1859.	1860.	1861.
Domestic produce,.....	\$4,771,962	\$4,938,065	\$7,525,713	\$9,552,789
Foreign mdse., (free,)....	70,463	380,782	232,552	203,325
Foreign mdse., (dutiable,)..	277,419	232,527	140,949	260,866
Specie and bullion,.....	2,801,340	10,051,019	6,563,985	11,020
Total exports,.....	\$7,921,829	\$15,602,393	\$14,463,199	\$10,028,000
Total, exclusive of specie,	5,119,844	5,551,374	7,811,214	10,016,980

The movement of produce from the interior continues to be very large. The receipts at tide-water of the principal articles of produce, from the opening of the canals to and including the 14th of August, have been as follow :

	1859.	1860.	1861.
Canal open,.....	April 15.	April 25.	May 1.
Flour,.....bbls.	209,796	372,980	523,852
Wheat,.....bush.	696,003	4,480,923	11,811,333
Corn,....."	1,392,881	7,642,394	8,060,289
Barley,....."	147,184	75,913	187,420
Oats,....."	2,347,931	3,547,727	2,595,028
Rye,....."	99,146	121,967	387,984

The returns from other lines of improvement would probably show an equally favorable result.

The receipts of foreign gold and silver, and of gold from California, at New-York, and at Boston for New-York account, since January 1, are about as follows :

Foreign gold entered at New-York,.....	\$33,365,000
Foreign gold entered at Boston,.....	7,398,000
California gold at New-York,.....	22,250,000

Total income of gold since January 1,..... \$63,011,000

Against same time in 1860 :

From California, ...	\$21,691,000
From abroad, ...	751,000
	\$22,442,000

Increased receipts since January 1,..... \$40,569,000

The shipments of domestic produce for the past seven months are more than double those for the same period of 1858 and 1859.

It is somewhat remarkable that the comparative exports for seven months in each of the last three years foot up about the same, but are made up of very different items. In 1859, forty-three millions of specie were included; in 1860, twenty-eight millions; while in 1861, only three millions of specie have been exported during the whole seven months.

EXPORTS FROM NEW-YORK TO FOREIGN PORTS FOR SEVEN MONTHS, FROM JANUARY 1.

	1858.	1859.	1860.	1861.
Domestic produce,.....	\$33,352,354 ..	\$33,373,647 ..	\$46,281,575 ..	\$71,030,228
Foreign mdse., (free),...	853,024 ..	1,765,100 ..	1,860,424 ..	1,888,654
Foreign mdse., (dutiable),	2,557,844 ..	1,021,890 ..	3,325,061 ..	3,699,329
Specie and bullion,.....	15,161,455 ..	43,248,991 ..	28,148,737 ..	3,260,458
Total exports,.....	\$51,924,677 ..	\$80,409,628 ..	\$79,610,797 ..	\$79,878,669
Total, exclusive of specie,	36,763,222 ..	37,160,637 ..	51,467,060 ..	76,618,511

With this heavy influx of gold it is obvious that the foreign exchanges remain at a low price, as in May, June or July. The following were the current rates at the dates named :

	May 22.	June 24.	July 24.	August 24.
London, bankers' bills,....	105½ @ 106½	105½ @ 105½	107½ @ 107½	107½ @ 107½
Do. mercantile bills, ..	105 @ 106	104½ @ 105	105½ @ 106½	106 @ 107½
Do. with bills of lading,	108½ @ 104½	102½ @ 104	104½ @ 105½	105 @ 106
Paris, bankers' bills,.....	5.45 @ 5.25	5.40 @ 5.37	5.30 @ 5.27½	5.40 @ 5.27
Amsterdam, per guilder,...	39 @ 40	39 @ 39½	40½ @ 41	39½ @ 40½
Bremen, per rix dollar,....	77 @ 78	75½ @ 76½	77½ @ 78	76 @ 77
Hamburg, per marc banco, .	35 @ 35½	34½ @ 35½	35½ @ 36	35 @ 35½

Prices of certain Articles of Domestic Produce at New-York on the 1st of August, in each of the last five years.

	1857.	1858.	1859.	1860.	1861.
BREADSTUFFS.					
Flour, stand. sup. bbl.,...	\$ 6.45 ..	\$ 4.10 ..	\$ 4.90 ..	\$ 5.10 ..	\$ 4.05
Wheat, wh. west., bush., ..	.. ..	1.12 ..	1.15 ..	1.35 ..	1.20
Wheat, red west., " ..	1.65 ..	1.10 ..	1.00 ..	1.25 ..	1.12
Wheat, Chic. spg., " ..	1.38 ..	85 ..	75 ..	1.17 ..	87
Wheat, Mil. club, " ..	1.45 ..	95 ..	.. ..	1.23 ..	95
Rye, bush.,.....	1.12 ..	80 ..	77 ..	81½ ..	47
Corn, mixed west., bush., ..	90 ..	91 ..	80 ..	62 ..	45
Cotton, mid. up., per lb.,	15½ ..	12½ ..	12½ ..	10½ ..	16
NAVAL STORES.					
Spirits turpentine, gall.,	45½ ..	44 ..	45½ ..	38 ..	81
Rosin, common, bbl.,....	1.85 ..	1.52½ ..	1.75 ..	1.45 ..	3.94
PROVISIONS.					
Pork, mess, bbl.,.....	24.25 ..	17.50 ..	15.25 ..	19.12½ ..	16.00
Pork, prime, bbl.,.....	19.50 ..	14.12½ ..	10.87½ ..	14.25 ..	10.75
Beef, repacked west., bbl.,	16.50 ..	13.00 ..	12.00 ..	10.00 ..	9.75
Butter, State, per lb.,....	20 ..	18 ..	18 ..	18 ..	11
Cheese, State, per lb.,....	9 ..	7½ ..	8 ..	10 ..	6
Lard, prime, per lb.,.....	15½ ..	11½ ..	10½ ..	13½ ..	9
Rice, per 100 lbs.,.....	5.50 ..	3.50 ..	4.00 ..	4.62½ ..	5.75
Sugar, fair, refined,....	9½ ..	5½ ..	6½ ..	6½ ..	5½
Wool, med. fleece, lb.,....	46 ..	40 ..	45 ..	46 ..	..
Whiskey, gall.,.....	31½ ..	25 ..	25½ ..	21 ..	16½

Prices have changed materially on some articles during the month; thus, flour and grain are a little higher; cotton is two cents higher, and spirits turpentine and rosin have made a very rapid upward movement. The export orders for breadstuffs continue, the most active demand for wheat being for the Continent.

THE
MERCHANTS' MAGAZINE

AND
COMMERCIAL REVIEW.

Established July, 1839.

EDITED BY

J. SMITH HOMANS, (SECRETARY OF THE CHAMBER OF COMMERCE OF THE STATE OF NEW-YORK,)

AND WILLIAM B. DANA, ATTORNEY AT LAW.

VOLUME XLV. SEPTEMBER, 1861. NUMBER III.

CONTENTS OF No. III., VOL. XLV.

ART.	PAGE
I. TAXATION IN THE NEW AND OLD WORLD.—COMPARATIVE REVENUE AND EXPENDITURE OF GREAT BRITAIN, FRANCE AND THE UNITED STATES—SOURCES OF REVENUE IN FRANCE—HEADS OF EXPENDITURE—HEADS OF TAXATION IN GREAT BRITAIN—NEW SOURCES OF REVENUE IN THE UNITED STATES, FOR WAR PURPOSES,...	225
II. COFFEE AND THE COFFEE TRADE.—1. Diminished production in Brazil. 2. Causes of Decline. 3. Coffee Markets of Europe and the United States. 4. Exports from Rio Janeiro, 1846—1861. 5. Lowest and Highest Prices in New-York, 1846—61, 226	
III. ACTS OF THE THIRTY-SEVENTH CONGRESS.—1. The Collection of Duties on Imports. 2. An Act to Provide Increased Revenue from Imports, to Pay the Interest on the Public Debt, and for other purposes. 3. An Act to Increase the Consular Representation of the United States during the present Insurrection,.....	280
IV. ANNUAL REPORT ON THE SALT TRADE OF THE UNITED STATES for the year 1860, with the Estimated Production of each State, the Foreign Imports and Exports for the year, and prices for each month,.....	257
V. ANNUAL REPORT ON DRUGS AND THE DRUG TRADE, for the year 1860,....	261
VI. ANNUAL REPORT ON BREADSTUFFS AND PROVISIONS.—Exhibit of the Aggregate Value of Breadstuffs Exported to Foreign Countries from the United States, for each year, 1823, to 1st July, 1860; also the Export Value of Provisions for the same period—Exports to Great Britain and the Continent, and Values thereof,.....	263
VII. ANNUAL REPORT ON FREIGHTS, FOR 1860.—Rates to Liverpool, London, Havre, Galveston, Havana, Vera Cruz, &c., each month of 1860,.....	270
VIII. THE TEA TRADE OF THE YEAR 1860.—Imports, Exports of each Port and Values,	272
IX. OPERATIONS OF THE UNITED STATES ASSAY OFFICE, New-York, 1860,.....	273

COMMERCIAL REGULATIONS.

1. Duties levied in Scinde. 2. The Coolie Traffic. 3. Treaties with Japan. 4. Custom-House Regulations of Rio Janeiro. 5. Foreign Tariffs,..... 274

JOURNAL OF AGRICULTURE.

1. British Wool. 2. Beet Root Sugar. 3. Wild Silk Worms of India. 4. Agricultural Products of Iowa,..... 280

STATISTICS OF POPULATION, &c.

1. Cities of Errope. 2. New Congressional Apportionment. 3. The Chinese in California. 4. The British Census of 1861. 5. Cities in Great Britain. 6. Emigration from Great Britain. 7. Population of the World. 8. Curiosities of the English Census. 9. Vital Statistics of 1860. 10. Vital Statistics of Scotland,..... 284

RAIL-ROAD, CANAL AND TELEGRAPH STATISTICS.**AND PROGRESS OF GEOGRAPHICAL DISCOVERY.**

1. Buffalo and New-York City Rail-Road. 2. Michigan. 3. Philadelphia. 4. Australia. 5. Traffic through France. 6. Ocean Telegraphs. 7. The Russian Telegraph from China to Europe. 8. Malta and Alexandria Telegraph. 9. Mediterranean Sub-Marine Telegraph. 10. Duties on Rail-Road Iron, &c. 11. French Railways. 12. Horse Railways in New-York. 13. Scinde Railway. 14. Ghaut Railway. 15. Railway Progress in India. 16. Railway Directors in France. 17. Iron Rails. 18. Texas and New-Orleans Rail-Road. 19. The Ladrone Islands. 20. Sources of the Nile. 21. The Amoor Country. 22. Exploration of the Red Sea,..... 290

JOURNAL OF INSURANCE.

1. Fire Insurance Duties in England. 2. Life Policies not subject to Forfeiture. 3. The Great Fire in London. 4. Fire-Proof Buildings. 5. New Insurance Laws of Massachusetts,..... 291

JOURNAL OF NAUTICAL INTELLIGENCE.

1. Prices of Iron Propellers. 2. Offer to the Life-Boat Institution. 3. New Mode of Propelling Boats. 4. Interesting to Yachtmen. 5. Importance of Telegraph Despatches. 6. The Erin-Go-Bragh. 7. A New Pier at Southport. 8. The Drummond Light. 9. French War Steamers. 10. Crews of Stranded Vessels. 11. Caution to Mariners. 12. Destructive Storms in France. 13. San Francisco Harbor. 14. Nautical School in New-York. 15. New Light-Houses in Europe,..... 294

JOURNAL OF MINING AND MANUFACTURES.

1. New Gun for Government. 2. Navy Shoes. 3. International Exhibition of 1862. 4. Plumbago. 5. California Academy of Science. 6. Borax Mineral. 7. Aluminum in Greenland. 8. Iron Clad Ships. 9. Mauve and Magenta Colors. 10. Canadian Timber for France. 11. Basswood. 12. French School of Art,..... 298

CHAMBERS OF COMMERCE AND BOARDS OF TRADE.

1. Monthly meeting of New-York Chamber of Commerce,..... 299

FOREIGN CORRESPONDENCE OF THE MERCHANTS' MAGAZINE.

1. Letter from London, August 8, 1861,..... 304

COMMERCIAL CHRONICLE AND REVIEW.

- Business of the Month—Imports—Exports—Exports and Prices for July—Rates of Money—Specie—Specie Shipments—Bank Movement—The New Tariff of August, 1861—Extraordinary Influx of Specie—Low Rates of Foreign Bills—Heavy Receipts of Flour and Grain—Comparative Prices,..... 311

Notices of New Books are in type, but necessarily deferred till the October No.

THE MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

OCTOBER, 1861.

SEA AND UPLAND COTTON vs. FLAX AND HEMP.

COTTON is found growing naturally in the tropical regions of Asia, Africa and Armenia. It is distinguished in commerce by its color, and the length, strength and fineness of its fiber. White is usually considered characteristic of secondary quality. Yellow, or a yellowish tinge, when it is natural, is usually considered as indicating great fineness. There are many varieties of raw cotton, but they are usually classed under the denominations of long and short stapled. The best of the first is considered the Sea Island, the product of Georgia. A small quantity of very superior cotton has been imported into England from New South Wales.

The manufacture of cotton has been carried on in Hindostan from the remotest antiquity. The manufacture obtained no footing worth mentioning in Europe till the last century. The rapid growth and prodigious magnitude of the manufacture of cotton in Great Britain are, beyond all question, the most extraordinary phenomenon in the history of industry. When the manufacture commenced in England the material was obtained from Hindostan and China, where the inhabitants had arrived at such perfection in spinning and weaving that the lightness and delicacy of their finest cloths imitated the web of the gossamer, and seemed to set competition at defiance. Such has, however, been the stupendous discoveries and inventions as to overcome these difficulties, as well as the cheapness of labor in Hindostan. The precise period when the manufacture was introduced into England is not known, but it is probable that it was the early part of the seventeenth century. Authentic mention of it is made in sixteen hundred and forty-one, (1641.) From the first introduction of cotton into Great Britain, down to 1773, the weft, or transverse threads of the web only, were made of cotton—the warp or longitudinal threads consisting wholly of linen yarn, imported from Germany and Ireland. Prior to seventeen hundred and sixty, (1760,) weavers

were dispersed in cottages throughout the country, and furnished themselves as well as they could with the weft and warp for their webs, and carried them to market when they were finished. The Manchester merchants, at this period, began to send agents into the country, who employed weavers, whom they supplied with foreign Irish linen yarn for warp and with raw cotton, which, being carded and spun by means of a common spindle and distaff, in the weaver's own family, were then used for wefts.

The entire value of cotton goods manufactured in Great Britain in seventeen hundred and sixty, (1760,) is estimated at only two hundred thousand pounds a year, but in sixteen hundred and sixty-seven, (1667,) the spinning jenny was introduced, by means of which eight threads were spun with the same facility as one; and, subsequently, a little girl was enabled to work no fewer than from eighty to one hundred spindles. By the spinners' frames, afterwards introduced, a thread of sufficient fineness was produced to answer for the longitudinal threads for warp. Since seventeen hundred and eighty-five, (1785,) the progress of improvement in every department for the manufacture of cotton has been most rapid. The estimated amount of the cotton crop of the United States, after and including 1832, are—

	<i>Pounds.</i>		<i>Pounds.</i>
In 1821,.....	110,940,000	In 1827,.....	285,120,000
" 1822,.....	121,485,000	" 1828,.....	213,840,000
" 1823,.....	136,125,000	" 1829,.....	255,780,000
" 1824,.....	152,880,000	" 1830,.....	292,040,000
" 1825,.....	169,860,000	" 1831,.....	311,655,000
" 1826,.....	211,680,000	" 1832,.....	296,245,000

The lowest average price in England during this period was in 1831, 5½ pence, and the highest in 1825, 11½ pence. Previous to 1790 the United States did not supply the English market with a single pound of cotton; so says Mr. McCULLOUGH, whose authority there is no reason to question in so far as Upland cotton is concerned, but there appears to have been shipments of a superior quality of Sea Island cotton prior to this date. This will account for what appears to be a discrepancy between Mr. McCULLOUGH and the Congressional reports found at the American Institute. According to these last, the first arrival of cotton at Liverpool from the United States was—

January 20th, 1785,.....	one bag.
May 4th, 1786,.....	two bags.
Total during the year,.....	six bags.
Total during the year 1787,.....	one hundred and eight bags.
Total import from 1785 to 1790, one thousand four hundred and forty-one bags.	

After the termination of the American war the cultivation in Carolina and Georgia succeeded so well, that it now forms the principal staple production of the United States. The cotton gin, according to McCULLOUGH, was invented by WHITNEY in 1793, and has done for the planters what the genius of ARKWRIGHT has done for the manufacturers, and that at present (1835) the export of cotton from the United States exceeds 300,000,000 pounds a year.

The cotton product of the United States in 1764 was 1,200 lbs.

In 1794.....lbs.,	1,601,700	....	In 1804.....lbs.,	38,118,041
" 1814.....	17,806,479	....	" 1824.....	142,369,663
" 1834.....	413,928,240	....	" 1843.....	792,297,106

In 1842 the product of the United States is given in bales at 1,683,174, and in 1843, 2,378,875. (*U. S. Doc.*) The estimated product of the United States for the year 1859 was 3,400,000, and for 1860, 4,600,000 bales. The average weight of a bale of cotton is assumed to be 470 pounds. The actual result of the year 1860, however, showed the product to have been but 4,000,000 bales.

The MERCHANTS' MAGAZINE for May, 1861, gives the estimated cotton crop in 1820 at 425,000 bales; in 1830, at 870,415; in 1840, 2,177,532; in 1850, 2,796,706; in 1860, 4,600,000 bales.

Congressional reports show the United States exports of cotton to have been in—

1821, ..	124,893,405 lbs.	..	average cost per lb.,	16 2-10c.	..	value, \$	20,157,484
1822, ..	144,675,096	"	"	16 6-10	..	"	24,035,058
1823, ..	173,723,270	"	"	11 8-10	..	"	20,445,520
1824, ..	142,369,663	"	"	15 4-10	..	"	21,947,401
1825, ..	176,449,907	"	"	20 9-10	..	"	36,846,649
1826, ..	204,535,415	"	"	12 2-10	..	"	25,025,214
1827, ..	294,310,115	"	"	10	..	"	29,359,545
1828, ..	210,590,463	"	"	10 7-10	..	"	22,487,229
1829, ..	264,837,186	"	"	10	..	"	26,576,311
1830, ..	298,459,102	"	"	9 9-10	..	"	29,674,883
1831, ..	276,979,784	"	"	9 1-10	..	"	25,289,492
1832, ..	313,215,122	"	"	9 8-10	..	"	31,724,682
1833, ..	324,698,604	"	"	11 1-10	..	"	36,191,105
1834, ..	384,717,909	"	"	12 8-10	..	"	49,448,402
1835, ..	387,358,992	"	"	16 8-10	..	"	64,961,302
1836, ..	423,631,367	"	"	16 8-10	..	"	71,284,925
1837, ..	444,211,537	"	"	14 2-10	..	"	63,240,102
1838, ..	595,952,297	"	"	10 3-10	..	"	61,556,811
1839, ..	413,624,212	"	"	14 8-10	..	"	61,238,932
1840, ..	743,991,061	"	"	8 5-10	..	"	63,870,307
1841, ..	530,204,100	"	"	10 2-10	..	"	54,330,341
1842, ..	584,717,017	"	"	8 1-10	..	"	47,593,464
1843, ..	792,297,106	"	"	6 2-10	..	"	49,119,806
1844, ..	663,633,455	"	"	8 1-10	..	"	54,063,501
1845, ..	872,905,996	"	"	5 92	..	"	51,739,643
1846, ..	547,558,055	"	"	7 81	..	"	42,767,341
1847, ..	527,219,968	"	"	10 34	..	"	53,415,848
1848, ..	814,274,431	"	"	7 61	..	"	61,998,294
1849, ..	1,026,602,269	"	"	6 4-10	..	"	66,395,967
1850, ..	635,381,604	"	"	11 3-10	..	"	71,984,616
1851, ..	997,237,089	"	"	12 11	..	"	112,315,317
1852, ..	1,093,320,639	"	"	8 05	..	"	87,965,732

Treasury Department,
Register's Office, Jan. 5, 1853.

N. SARGENT, Register.

This much has been said in reference to cotton, as preparatory to the consideration of the articles of flax and hemp, more particularly the former, to which public attention has been more particularly directed by the transpiring events of the day.

"Flax, (Ger. *Flachs*; Du., *Vasch*; Fr., *Lin*; Ita. and Sp., *Lino*; Rus., *Len*, *Lon*; Pol., *Lin*; Lat., *Linum*.) an important plant, (*Linum usitatissimum*.) was at one time an article of considerable export from the

United States, and may be again profitably raised for its seed without further reference to the use of the stalk.

"In 1790 the quantity of the seed exported amounted to 312,000 bushels. For twenty years previous to 1816 the average annual exports were 250,000 bushels. The smooth, rich prairie land of the West afford an excellent opportunity for raising flax to any extent; and since linseed is an article that bears exportation so well, many thousand acres might be cultivated to advantage, especially as the crop might be pulled by machinery, or, if the seed is the only object, it might be cut with like facility." (*U. S. Doc.*) The estimated hemp crop of the United States in 1844 was 22,800 tons.

Flax is an important plant, and has been cultivated from the earliest ages in Great Britain and many other countries, its fibers being manufactured into thread and its seed crushed for oil. The principal sorts of flax imported into Great Britain are Petersburg, Narva, Riga, Rivel, Liebau, Memel, Oberland and Dutch flax. It comes in bundles of twelve, nine and six heads. The Riga flax seems to deserve the preference, and is imported from the Baltic. It is the growth of the provinces of Maninberg, Druania, Thusenhausen and Lutherama. Flanders or Dutch flax is well-dressed, and of the finest quality. Flax is extensively cultivated in Egypt of late years; some of the Italian ports, which used to be supplied from Russia, have been supplied on lower terms from Alexandria. New-Zealand flax is said to exceed every other species in strength of fiber and whiteness, qualities which, if it really possesses them in the degree stated, must make it particularly fitted to be made into canvass and cordage. It has been obtained, within these few years, at second hand, from Sidney and Van Dieman's Land; the imports from them amounting, in 1831, to 15,725 cwt. Attempts are now being made, but with what success remains to be seen, to raise it in Great Britain.

When flax is brought to the principal Russian ports where it is shipped, it is classified according to its qualities, and made up by sworn inspectors, appointed by the government for the assortment of that and all other merchandise. These functionaries are said to perform their task with laudable impartiality and exactness. A ticket is attached to every bundle of assorted flax, containing the names of the inspector and owner, the sort of flax and the period when it was selected and inspected.

Good flax should be of a fine, bright color, well separated from tow codilla or coarser part of the plant, and of a long, fine and strong fiber. In purchasing flax it is usual to employ an agent wholly devoted to this particular business.

Of 936,411 cwt. of flax and tow imported into Great Britain in 1831, 623,231 cwt. was from Russia, 128,231 cwt. from the Netherlands, 101,721 cwt. from Prussia, 55,324 cwt. from France, 1,415 cwt. from Italy, 15,276 cwt. from New South Wales, &c. Almost the whole of the quantity was retained for home consumption.

Flax seed contains a great deal of oil, which it yields by expression, and is cultivated either that it may be used in sowing, or sent to crushing mills to be converted into oil. The quantity of the crop depends much on the seed employed; a good deal of care is requisite in selecting the best; generally speaking, it should be chosen of a bright brownish color, oily to the feel, heavy and quite fresh. Dutch seed is in the highest estimation for sowing; it not only ripens sooner than any other that is

imported, but produces larger crops, and of the quality that best suits the principal British manufactories. American seed produces fine flax, but the produce is not as large as from the Dutch seed. British seed is sometimes used instead of Dutch, but the risk of the crop misgiving is so much greater that those only who are ignorant of the consequences, or who are compelled from necessity, are chargeable with this act of ill-judged parsimony. Crushing seed is principally imported from Russia, but considerable quantities are also brought from Italy and Egypt. Of the 758,128 bushels of linseed imported into Great Britain in 1831, 221,702 were brought from Russia, 172,099 from Prussia, 106,244 from the United States, 105,448 from Italy, 98,847 from Egypt, 53,738 from the Netherlands, &c.

Hemp is supposed to be a native of India, but long since naturalized and extensively cultivated in Italy and many countries in Europe, particularly Russia and Poland, where it forms an article of primary importance. It is stronger and coarser in the fiber than flax, but its uses, culture and management are pretty much the same. When grown for seed it is a very exhausting crop, but when pulled green it is considered a clearer of the ground. In England its cultivation is not deemed profitable, so that, notwithstanding the encouragement it has received from government and the excellent quality of English hemp, it is but little grown, except in some few districts of Suffolk and Lincolnshire. The quantity raised in Ireland is also inconsiderable.

From what precedes, the great expansion of the cotton product of the United States appears to have been after the year 1829. Prior to 1820, if not to a still later period, the flax product was deemed of more importance than cotton. Flax was manufactured by the families that produced the plant, in their own houses, and it furnished them with table-cloths, bed-linen, and under garments and outer clothing in summer. Prior to 1810, if not later, the raw cotton furnished the country merchants in the towns on the North River and back, was the East India, by way of England to New-York. It was very imperfectly cleaned of its seed, and packed in large bags without being pressed. The common retail price of this cotton was 2s. 6d., or 31½ cents per pound. It was used for bats for quilts and dresses, and spun into yarn for mops. At that period a coarse muslin was also imported from the East Indies, and sold in the country towns above referred to, at the like price of 31½ cents per yard. The same article might to-day command some 4 or 5 cents per yard for book covers or like purposes. At that period there was but a single store for the sale of domestic cotton goods in the city of New-York, and, as far as known, but one manufacturer in the United States; this was a Mr. SLATER, of Rhode Island, who produced a superior fabric of this description of goods. They were sold by WILLIAM F. MOTT, who is still living, then doing business in Pearl-street, near Peck Slip. Public attention for the last few years has been again directed to the article of flax, and, from present indications, it would seem that it is again to occupy an important place in the productions of the country, and equal, if not exceed in value and importance, the cotton product of the United States. By the simple application of steam, at a pressure of some two hundred pounds to the square inch, the gummy or resinous matter is separated, and afterwards removed from the fiber of the plant, together with the woody substance, and a product as soft and delicate as cotton is the result, better adapted

than it to a vast variety of uses for which cotton is now used. The invention is calculated to work a revolution in flax as great in magnitude, if not greater, than has been effected by the cotton gin in cotton, and eventually to clothe the world in linen, clean and white, for there is evidently no limit to the production of the plant in almost any part of the world. The prairie lands of the great West are more particularly adapted to it, and to these the public attention is particularly directed, where almost the entire labor can be performed by the use of machinery.

JOURNAL OF MERCANTILE LAW.

COMMISSION MERCHANTS—CONSIGNEE'S ADVANCES ON BILLS OF LADING—BILL OF SALE.

Bill of Lading.—The action of DOWS & CARY *vs.* GREENE & MATHER, is one that has been in our New-York State courts for a long time. We first find it reported in 16 BARB., 72, and now it comes up again in a new form and will be found reported in the last volume of BARBOUR, (32 BARB., 490,) where some important questions are discussed and decided.

The *plaintiffs*, DOWS & CARY, were, it seems, commission merchants in New-York, and claimed title to a quantity of corn (to recover which this action was brought) as *bona fide* purchasers or lien-holders thereof for value, from a person by the name of J. F. MACK, (an alleged purchaser of the corn from NILES & WHEELER, a forwarding firm at Buffalo,) the said *plaintiffs*, as consignees of the corn, having in good faith made advances upon the bill of lading given by said NILES & WHEELER to MACK. The *defendants*, GREENE & MATHER, also claimed this corn through parties who had obtained title from this same firm of NILES & WHEELER *after* they (NILES & WHEELER) had repudiated the sale to MACK, as unauthorized by them, and also as fraudulent. The following were the facts proved:

Facts.—NILES & WHEELER were forwarders, at Buffalo, as is stated above, and agents of the American Transportation Line of canal boats, which line was owned by them and Mr. M. CALER, of New-York, a partner of theirs in the forwarding business. NILES & WHEELER also purchased and sent corn to market on their own account.

The *plaintiffs* claimed the corn under certain bills of lading executed at Buffalo, dated August 7, 1848, by NILES & WHEELER per E. H. WALKER, their clerk and agent, showing the shipment of the corn to account of J. F. MACK, care of plaintiff, New-York. The form of the several instruments herein called bills of lading is given in the case, and one of them, that on which the *plaintiffs* rely to recover, is as follows: "No. 143, duplicate. Buffalo, August 7, 1848. Shipped, in good order, by NILES & WHEELER, agents, on board canal boat NEPTUNE, — master, American Transportation Line, the following named articles, made

and consigned as in the margin, to be delivered as addressed without delay. Account J. F. MACK, care of Dows & CARY, N. Y., 2,385 bushels corn. Ohio freight to New-York, per bushel, 13 cents. NILES & WHEELER, per E. H. WALKER." By a subsequent bill of lading the quantity was corrected and stated at 2,565 bushels of corn.

MACK resided at Rochester, and was a dealer in grain. JAMES L. BLOSS resided at Rochester, and had for several years been purchasing grain in his own name, but in fact as the agent for other persons and by their direction. He had, for five or six months previous to the transaction in question, been making such purchases as the agent of MACK, and had received the money promptly in each instance. In transactions of this kind he had asked for duplicate bills of lading, and the vendors had given the bills before the delivery of the property and before receiving payment. They had trusted to his honor and the integrity of the man at Rochester to send the money, and it had always come.

NILES & WHEELER had purchased a cargo of about 10,000 bushels of corn, which was on board the propeller MONTEZUMA, lying near their warehouse at Buffalo.

On Monday, the 7th of August, 1848, BLOSS called at the office of NILES & WHEELER, and proposed to purchase the corn, intending it for MACK, but did not mention the fact that he was acting as an agent. The negotiation was between BLOSS and NILES; the price asked was forty-four cents per bushel, and BLOSS said he would take the corn if he could have a little time to get money from Rochester, and gave a reference for certainty of payment.

NILES said he wanted no reference, as they would only sell the corn for cash. BLOSS thereupon left the office, but was immediately called back by the order of NILES, when the negotiation proceeded. NILES asked where BLOSS wished to transport the corn, and on being answered to New-York, he said they could, perhaps, make arrangements if he (NILES) could transport the corn. It was finally agreed that half the money should be paid on Friday, and the remaining half on Saturday, and that NILES & WHEELER should transport the corn to New-York in their boats at 13 cents per bushel. NILES said he would not sell on credit to anybody; that he would hold the corn on his boats until it was paid for, and such was the arrangement between them.

BLOSS said NILES would be indemnified by the property itself, as he (BLOSS) would not get possession of it until it was paid for. BLOSS immediately telegraphed to MACK, advising him of the purchase of the corn, mentioning quantity and price, and on the evening of the same day BLOSS received the bill of lading before referred to, executed in the name of NILES & WHEELER, by WALKER, their clerk. He had before made out some bills of lading, and evidence was given tending to show his authority, and also that NILES was present when he made out the bills of lading. The defendants gave evidence tending to show that WALKER had never signed such bill of lading before, but only bills where the goods shipped belonged to other persons and not to NILES & WHEELER. WALKER made a distinction between receipts for property and memoranda of shipment, (such as he claimed these to be,) and regular bills of lading. The corn was shipped in the boats CUBA, NEPTUNE, P. B. LANGFORD and A. BEARDSLEY. The loading was commenced, according to BLOSS, on the

same day, (Monday, 7th August,) and, as Bloss thinks, was completed as to two boats, (CUBA and NEPTUNE,) the same day.

VAN INWEGAN, the tally clerk, says the loading of the NEPTUNE was commenced on Monday, and completed on Tuesday or Wednesday, and the CUBA started first, on the 9th, (Wednesday,) and the NEPTUNE on the 10th, (Thursday.)

The evidence left the time of lading in some doubt. On Monday, the day of purchase, Bloss got the tally of the cargo of the two boats, (CUBA and NEPTUNE,) and delivered them to the office of NILES & WHEELER, about six or seven o'clock in the evening, and received from WALKER, their clerk, bills of lading of the two boats.

Bloss sent the bills of lading to MACK the same day, informing him that the corn was to be paid for on Friday or Saturday. The plaintiffs had been at Rochester on the 5th or 6th of August, and had agreed with MACK to make advances to him on corn, to thirty-eight cents per bushel, on his furnishing shipping bills for the corn.

The business was to be done on the part of the plaintiffs by JAMES CHAPPELL, their general agent at Rochester. MACK was to furnish the shipping bills to CHAPPELL, who was to endorse MACK's drafts on the plaintiffs for the amount of advances, which the plaintiffs were to accept and pay. Advances to MACK in the same way had been made before. On Tuesday, the 8th of August, MACK presented to CHAPPELL the two bills of lading, (CUBA and NEPTUNE,) and drew two bills on the plaintiffs, one for \$1,000, for thirty days, and one for \$800, at twenty-five days, both payable to the order of CHAPPELL, and both endorsed by him, on receiving the bills of lading, and the drafts were delivered to MACK. MACK passed and negotiated the drafts to the Rochester City Bank, and received the money therefor. On the same day CHAPPELL enclosed the shipping bills to the plaintiffs in New-York. The two drafts were presented for acceptance by the American Exchange Bank, and accepted by the plaintiffs on the 10th of August, (Thursday,) and were paid at maturity. On Friday, the 11th of August, Bloss sought NILES, and told him that he had sent shipping bills of the corn to Rochester to MACK, for whom he had bought the corn; that he had not received the money, and did not know what the matter was; that he had never been disappointed in receiving money, but had previously received it promptly in every instance.

NILES said this was the first he had heard of MACK or of shipping bills, and he should sell the corn. Bloss asked him to wait till he could telegraph MACK and get an answer, and Bloss did telegraph him several times, without getting any answer. He then proposed that NILES or his clerk should go with him to Rochester, saying he would pay the expenses, and get the money or give up the corn. NILES said that VAN INWEGAN (his clerk) might go, and he went that day with Bloss to Rochester, where Bloss found that MACK had failed and left town on Thursday. On that day, the 10th of August, MACK made a general assignment of all his property to JOHN BROWN, preferring him to the amount of about \$10,000, and distributing the residue of his property equally among the rest of his creditors, among whom NILES & WHEELER were named as creditors, for corn sold, to the amount of about \$4,400. On Saturday VAN INWEGAN telegraphed NILES that the corn was not paid for, and MACK had run away. NILES then sold the corn to

P. DUFFEE & Co. at Buffalo. DUFFEE & Co. consigned the corn and delivered the bills of lading to ARTHUR H. ROOT. ROOT transferred them to JOSEPH H. GREEN, JR., the latter to GREEN & MATHER, and they to L. W. BRAINARD; and under these parties the defendants claimed to hold the property, and, on demand made, refused to deliver it to the plaintiffs.

On Saturday afternoon NILES went to Rochester; went up the canal on Sunday, and met three of the four boats, and gave them new bills of lading, on account of P. DUFFEE & Co., care of ARTHUR H. ROOT, Albany. The CUBA had passed Rochester before he got there. He sent a bill after her to be signed, which seems to have been done. The boats had all left Buffalo with bills of lading to M. M. CALEB & Co., New-York. On Friday, the 11th of August, when NILES was informed of the bills of lading to the plaintiffs, he telegraphed them as follows:

"Ten thousand and ninety bushels of corn, shipped by us on boats CUBA, NEPTUNE, A. BEARDSLEY, P. B. LANGFORD, acc't J. F. MACK, to DOWS & CARY, is not paid for. We notify you to consider and hold the same to our account, till further notice.

"NILES & WHEELER."

There was a mistake in the amount of the corn as stated in the first bills, and this was corrected on Wednesday. When the NEPTUNE arrived at Albany the plaintiffs demanded the corn of the defendants, and offered to pay the freight, the defendants then having possession thereof; but they refused to deliver it, and denied the plaintiffs' right to the corn.

The plaintiffs proved by BLOSS, in addition, that the bills of lading were made out by WALKER, he having been referred to by some apparently responsible man in the office as the proper man for that purpose; and that, as he thinks, NILES was present in the office when he made out the bills of lading; and that subsequently, when the fact was again talked over, NILES made no objection on the ground of want of authority. The bills of lading were in the hands of BLOSS, at Buffalo, on the 9th of August. CARY, one of the plaintiffs, saw them there, and having looked at them, handed them back to BLOSS, who then mailed them to MACK, at Rochester, who delivered them to CHAPPELL's clerk, receiving from him therefor two drafts of MACK on the plaintiffs, payable to the order of and endorsed by CHAPPELL, one for \$1,000 and one for \$800, which MACK procured to be discounted at the Rochester Bank. The bills of lading were immediately sent by CHAPPELL's clerk to New-York, where they were accepted by the plaintiffs on the 10th of August, and subsequently paid by them at maturity, some twenty-five or thirty days thereafter.

Decision.—The opinion of the court is of considerable length, but we do not deem it necessary to reproduce it here. The following, however, were the points decided:

I. That the plaintiffs' title, if otherwise valid, (being prior to the defendants' in point of time,) must prevail. The question, therefore, is as to the plaintiffs' title.

II. That the bill of lading given BLOSS was good in matter of form.

III. That it was properly executed, and that it went into the possession

of Bloss lawfully, and the plaintiffs made advances upon it in good faith, relying upon the bill of lading as evidence of ownership, and without notice of any facts justifying the conclusion that Bloss was not the real owner, or that any fraud was meditated or had been committed in the purchase of the corn.

IV. That the plaintiffs' title to the corn is good, *notwithstanding* MACK may have intended a fraud in acquiring possession of the goods, and purchased with a preconceived intention not to pay.

These are the propositions discussed and decided by the court in the published opinion. As to the correctness of at least the last point, (IV.,) there must be, we think, considerable doubt; and we certainly cannot consider it to be a true exposition of the law until it is held to be such by our Court of Appeals. In a similar case, (*Dows vs. PERRIN*, 16 *N. Y. Reports*, 325,) the Court of Appeals have stated that a bill of lading is *not* such a negotiable commercial instrument as to confer upon a *bona fide* transferee a title not affected by the fraud committed in obtaining it. This was, to be sure, a mere *dictum* in that case, and yet we believe the proposition to be correct, and think the court will reaffirm it whenever the question comes properly before them. A bill of lading has never been held to be negotiable in the sense that a bill of exchange or promissory note is. The extent to which our courts have gone is this: "That the right of stoppage *in transitu* is cut off by the transfer of the bill of lading to a *bona fide* purchaser." For instance, if A. should purchase for cash of B. a boat-load of corn, and A. should fail while the corn was being transferred, B. could retake the corn. But if B. had given a bill of lading, and this bill had been transferred to a *bona fide* purchaser, then A. would have no right to retake the corn, although it had been sold to B. for cash, and B. had failed without making the payment. The right of stoppage *in transitu* would in that case be cut off. This, however, is, we believe, the very extent our courts have or will go towards making a bill of lading negotiable. Where such a bill is void on account of *fraud*, the holder certainly cannot confer a better title than he himself has; it is void in the original holder's hands, and is void also in any one's hands (whether *bona fide* holder or not) to whom it may be transferred. The "*right of property*" must be in the one who obtains the bill of lading, before he can, by any transfer or endorsement of the bill, confer a title to the goods as against the true owner. So where the bill is obtained by fraud, the "*right of property*" is not, of course, obtained with it, and cannot, therefore, be passed over to any other party by a transfer of the bill. For these reasons we believe the conclusion (IV.) of the court in the above case is incorrect, and will be so held when the question is passed upon by our court of last resort.

BILL OF SALE.

The recent case of *SCHENCK AND OTHERS vs. SAUNDERS*, reported in 13 *Gray (Mass.) Reports*, 37, was an action to recover the value of sundry cases of boots and shoes. The *plaintiffs* were commission merchants and manufacturers of boots and shoes, under the firm of SCHENCK, WOOD & POND, having their principal place of business in New-York, but were accustomed to put out stock to different persons in the States of New-York, Connecticut and Massachusetts, to be manufactured into

boots and shoes. On the 11th of April, 1856, they made with CHARLES HOWE, of Farmingham, Mass., a written agreement in these words :

"The said SCHENCK, WOOD & POND, of the first part, agree to furnish stock, consisting of upper and sole leather and linings and findings, of sufficient amount to make at least eight and not to exceed twenty cases per week. And the said CHARLES HOWE, of the second part, is to take the stock and make it up, to the best of his abilities, into women's boots ; and further agrees, to consign all the goods he makes to the said SCHENCK, WOOD & POND, of the first part, to be sold by them on a commission of five per cent., the goods to be sold for cash, and the returns made to the said CHARLES HOWE as fast as made. And the said CHARLES HOWE, of the second part, agrees to put up and ship to the said SCHENCK, WOOD & POND, at their store in New-York, at least eight cases of boots per week, each case containing sixty pairs, commencing the first week in May, 1856."

It was proved, on behalf of the plaintiffs, that certain leather and stock, suitable to be made into boots and shoes, were delivered by them to HOWE, and by him made up into the boots and shoes now in controversy, and taken to Boston and delivered to the defendant for certain advances made HOWE by the defendant, as stated below ; that the defendant refused to deliver them up on demand made by plaintiffs, but sold them and applied the money to his own use.

The *defendant* was an auctioneer and commission merchant at Boston. He contended, on the trial, that the property in the stock delivered by the plaintiffs to HOWE, under the above contract, passed to HOWE, and introduced evidence tending to show that whenever the plaintiffs sent stock to HOWE, they sent him, within a few days afterwards, bills (not signed by the plaintiffs) in this form :

BOOT, SHOE AND LEATHER WAREHOUSE.

New-York, May, 15th, 1856.

MR. CHARLES HOWE, bought of SCHENCK, WOOD & POND, Manufacturers and Commission Merchants, No. 25 Beekman-street. Terms, 6 months.

52 sides sole leather, B. A., 644, 26½, ...	\$ 170 66
Inspection and cartage, ...	90
	\$ 171 56

Evidence was also introduced by the defendant, tending to show that when HOWE brought the boots and shoes now in controversy to the defendant in Boston, he showed the defendant said agreement and thirty or forty of the bills sent him by the plaintiffs of the above form, except in omitting in some of them the words, "terms, 6 months," and that the defendant, *after reading the agreement and looking over the bills*, made advances to HOWE on the goods, believing that HOWE owned them.

Decision.—On these facts the court held—

I. That the bills of parcels which were sent from time to time with the merchandise did not change the terms of the written agreement under which the property was sent to HOWE. They were sent only as memoranda of the amount and value of the merchandise transmitted.

II. The agreement was not a contract of sale. The true interpretation of it seems to be that it was an agreement by which HOWE was to manufacture the stock of the plaintiffs, and to receive from them as his pay

therefor, the proceeds of the sales of the goods, when manufactured and returned to them for sale, deducting the value of the stock and a commission of five per cent. on the sales.

Such being the construction of the bills and the contract, it follows that the defendant had no valid title to the property as against the plaintiffs, and the plaintiffs are entitled to judgment.

NEGOTIABILITY OF RAIL-ROAD BONDS.

Bonds transferred as security for Pre-existing Debts.—In the same volume of GRAY'S Mass. Reports, (13 Gray, 7,) we find reported the case of CULVER and others vs. BENEDICT, which was a bill in equity filed to obtain possession of nine bonds of \$1,000 each, issued in Indiana by the Logansport, Peoria and Burlington Railway Company, and payable to bearer.

Facts.—On the trial it was proved that the plaintiffs, being owners of the bonds in question, delivered them to one EDWARD SOLEY, (a broker in New-York city,) to procure a loan on them for the plaintiffs and for no other purpose. That SOLEY thereupon, and without any right or authority, delivered the bonds to the defendant, BENEDICT, as security for pre-existing debts due from SOLEY to BENEDICT, instead of using them as directed by the plaintiffs. The agreement between BENEDICT and SOLEY was made in New-York. But eight of the bonds were (pursuant to that agreement) delivered by SOLEY to BENEDICT in Massachusetts, and the other one was delivered in Connecticut.

Decision.—On these facts the court held—

I. These securities more closely resemble promissory notes payable to bearer. They are put in circulation and pass from hand to hand by delivery, and are thus bought and sold in the stock market, no formal transfers being required, and interest is paid thereon to whomsoever demands the same, upon presentation thereof, or the coupons attached thereto. Hence the right of the defendant, BENEDICT, to retain these securities as against the plaintiffs must be decided upon the same principles as if they were negotiable notes made payable to bearer. That such is the character of these bonds is also settled by legislative enactment.

II. None of these bonds were transferred to BENEDICT in the State of New-York, but eight of them were delivered to him in Massachusetts and one in Connecticut. *The transfer must be dealt with as a Massachusetts contract, under the circumstances disclosed.*

III. By the law of Massachusetts the receiving of a negotiable note in payment of a pre-existing debt, as collateral security for the same, excludes all the equities between the original parties thereto. Of course it must be taken in good faith and without notice of anything to impeach its validity as a just debt. Hence, on the facts disclosed in this case, the defendants' title to these bonds is perfect. Judgment was, therefore, given for the defendants against the plaintiff.

Such were the main propositions decided by the court in this case. Had, however, the court held that this was a New-York contract, (the contract to transfer having been made in New-York,) they must have reached a different final conclusion. For in New-York it is well settled

that a party taking a negotiable security in payment of, or collateral to a *pre-existing debt*, holds the security subject to all the equities between the person from whom he receives it and the original owner. This, it seems to us, is the more equitable doctrine. The party who takes the security on a *pre-existing debt*, actually parts with nothing for the security, and is, therefore, in no way damnified if compelled to re-deliver such security to the true owner. Such, too, is the law, we believe, in Connecticut, and we do not quite understand why the transfer of the one bond in Connecticut was not held to be a Connecticut transfer, and construed accordingly.

INSURANCE.

Life Insurance.—The action of TAYLOR *vs.* ÆTNA LIFE INSURANCE COMPANY, (13 Gray, 434,) was brought to recover the amount claimed to be due under a life insurance policy. The policy was on the life of ANDREW TAYLOR, for seven years from the 11th of April, 1855, in the sum of \$700, payable "within ninety days after due notice and proof of the death of said ANDREW TAYLOR, if within the term of this policy," with a condition that the policy should be void if the said TAYLOR should, without the consent of the company, endorsed upon the policy, pass beyond the settled limits of the United States, or certain of the British Provinces, or west of the Rocky Mountains.

Annexed to the policy was a license, of the same date, from the company, by which, in consideration of an extra premium, said TAYLOR was permitted "to pass by sea, in first-class decked vessels, from any port of the United States north of the thirty-ninth degree of north latitude to and from any port bordering on the Pacific Ocean, and to reside in California," and also "to pass to and from California *via* Chagres and Panama, or by the Nicaragua route."

The defence made was—*First.* That no affidavit or certificate of the attending physician, as to the circumstances and occasion of the death of ANDREW TAYLOR, was ever furnished to the defendants, although the plaintiff was informed, at the time he gave the notice and furnished certain other proofs of such death, that the defendants held such certificates or affidavit to be essential, and that until furnished the proof would not be considered complete nor the loss payable. It is admitted that the ship's physician was present and attending during the sickness, and at the time of the death of said TAYLOR; and the plaintiff offers no excuse for not furnishing such certificate, except the inconvenience and expense of sending to the Pacific coast to obtain it. *Second.* The other defence was, that the said ANDREW TAYLOR was on board the steamship Sierra Nevada "as a steerage passenger."

Decision.—The court held that neither of the above was a defence to the action. The substance of the opinion is as follows:

I. By the terms of the policy the sum insured was payable in ninety days "after due notice and proof of the death of ANDREW TAYLOR." Such notice and proof were therefore prerequisite to the maintenance of this action. It is, however, admitted in the case that there was no defect in the proof of said TAYLOR's death, unless, in order to constitute due proof thereof, it was necessary to produce a sworn certificate of the phy-

sician who attended the deceased in his last sickness. The ground taken by the defendants is, that such certificate is a requisite and essential part of the preliminary proof of the death, and made so, not only by the terms and reasonable intendment of the contract contained in the policy, but also by their own usage and understanding, and the usage and understanding of other life insurance companies.

To support this ground of defence, the defendants have introduced (the plaintiff's counsel consenting) a pamphlet issued by them, which they were accustomed to give to claimants on their policies, and which, it is admitted by the plaintiff, was given to him by the defendants at the time when he presented to them his proof of ANDREW TAYLOR's death. Under the head of "proofs of death required," that pamphlet contained, among other required proofs, the following: 1st. A certificate "*from the physician who attended the party during his last sickness, stating particularly the nature of the disease, its duration and the time of death.*" It was also a part of said required proof that the certificate "should be sworn to before a magistrate or other officer qualified to administer an oath or affirmation." But in all this we can find no defence to the action. *The policy does not embody nor refer to any by-law, requisition, usage or understanding of the defendants as to the kind of proof which they should require of the death of ANDREW TAYLOR.* Whatever, therefore, might be such by law, requisition, usage or understanding, the plaintiff would not be bound thereby. He is bound only by the policy itself, and that is, to furnish "*due proof*" of the death. If the defendants would have bound the plaintiff by their by-laws, &c., they should have made them a part of the contract contained in the policy. 2d. No authority was cited which sustains the position that ANDREW TAYLOR, by taking passage as a *steerage passenger*, failed to conform to the license given to him by the defendants to pass by sea in first-class deck vessels, of which the steamship in which he took passage is admitted to be one. And the court do not know, judicially or otherwise, that life is less safe in the steerage than in any other apartment of a vessel.

Mutual Insurance.—In the last volume of the New-York Court of Appeals Reports, (21 N. Y., 158, LAWRENCE vs. NELSON,) we find a case which decides that a member of a *mutual* insurance company, upon its insolvency, cannot, in an action brought against him to recover the amount of his premium note, set off a loss sustained by him on his policy, and adjusted before the company failed. This decision is an interesting one, as showing a characteristic difference between contracts with a *mutual* insurance company and all other contracts. For example: It is of course evident that if A. owes B., and B. owes A., the two accounts would be set off, the one against the other, in an action brought by the assignee of one of them. So, also, should a stock insurance company fail with an unpaid loss, owing A., in an action brought against A. by the receiver of the company to recover any sum due from him, A. would clearly be entitled to set off his loss against the claim of the company. But in a *mutual* company, where the action is brought to recover the amount of the premium note, no such claim would be an offset, for the reason that the *insured* is also an *insurer*—each sufferer is bound to *make* compensation as well as to *receive* it. As the court says, in its opinion, "The members of the association vir-

tually agree to insure each other, and provide a common fund (by giving these premium notes) to indemnify in case of loss. As all have contributed to this fund, they have a community of interest in it; and each member having his proportionate share of the losses, is entitled to his proportionate share of the profits, if any are realized." Thus, the court adds, "when the assets of the company are inadequate to the payment of the losses of all its members, the effect of permitting a sufferer to set off his loss in full against his premium notes, (which are his contribution to the means of the company,) is not only to confer a benefit without making compensation, but to take from the shares of his associate sufferers in the common fund—to which fund he and they are ratably entitled."

TOLLS ON RAIL-ROADS.

The People of the State of New-York vs. The New-York Central Rail-Road.—It will be remembered that this action was brought a year or more ago by the Attorney-General to recover about five millions of dollars for past tolls, and to establish the liability of the defendants to pay tolls for an indefinite period hereafter. The case was tried at the Orange County Circuit, and resulted in the dismissal of the complaint. An appeal was then taken by the Attorney-General to the general term of the Supreme Court, which was elaborately argued at Poughkeepsie by Attorney-General MYERS, for the plaintiff, and Messrs. PAIGE & TREMAIN, for the defendants, and now the unanimous decision of the court on this appeal has just been pronounced, affirming the judgment of dismissal rendered at the circuit. This mode, therefore, of replenishing the State Treasury, has thus far proved unsuccessful. The case will, however, be taken to the Court of Appeals, but we cannot believe that any different conclusion can be reached by our court of last resort.

The facts upon which this claim is based are very simple. The defendants are a corporation formed under the act of April, 1853. Previous to their organization under this act, they existed (as is well known) as several separate companies, each under its own charter. Part of these companies, by their charters, were required to pay tolls on all property transported by them, and others were required to pay toll only during canal navigation, and others not at all. The act of 1853, under which they were all consolidated, made the defendants subject to all the liabilities of the several companies, and also subject to the liabilities imposed by the general rail-road act of 1850, one section of which act required all corporations formed under it, and whose roads were parallel to and within thirty miles of any State canal, to pay tolls on freight. On the 10th of July, 1851, however, an act was passed abolishing tolls on rail-roads after December 31st, 1851, and repealing all acts and parts of acts inconsistent with that act. This provision the defendants set up as their defence to this action. The plaintiffs, on the contrary, insist that the act of 1851 was unconstitutional and void, because these tolls formed "part of the revenues of the State canals," and that by the constitution the legislature is prohibited from selling, leasing or otherwise disposing of the canals, or their freight or their revenue. The point, therefore, at issue is, whether or not this act of the legislature abolishing tolls is unconstitutional. Or, in other words, the plaintiff must make out, before

his claim can be considered established, first, that these rail-road tolls are a part of the "revenues of the State canals," and second, that the constitution forbids the impairing of these revenues.

The Supreme Court has held, as we have said above, that this act of 1851 is not unconstitutional, and that the defendants, therefore, are not liable to pay tolls. The question now will have to be passed upon by the Court of Appeals, and hence we shall not produce here the opinion of the Supreme Court. We have had the pleasure of reading a very able argument on this question, by the Hon. CHARLES P. KIRKLAND, of New-York, who was a member of the convention which framed the constitution, and, therefore, particularly able to judge of the intention of that body in inserting those clauses upon which the argument of the plaintiffs' counsel is based. It seems to us that he has demonstrated very clearly that there is no foundation whatever for this claim; that the words of the constitution will not grammatically admit of any such construction; that the language used was well understood by the constitutional convention and the then State officers, (this is clearly shown by the documents called for by and presented to the convention,) as meaning simply the canal tolls and water-rents, and that the sentiment of the convention forming the constitution was absolutely opposed to the policy of tolling rail-roads, and that it could not, therefore, have intended to have fastened such a system forever on the State. We trust there will be no unnecessary delay in presenting this case to the Court of Appeals for its decision.

CHAINS BY MACHINERY.

In New-York a company has been organized with a capital stock of \$1,000,000, for the purpose of manufacturing chains of every description, with machinery, the invention of G. G. DENNIS, Esq., who has spent thirteen years in perfecting it, and has now sold his invention to two companies for the sum of \$300,000. The New-York company proposes to locate their works, which will be 400 feet in length by 80 in breadth, at Bristol, R. I.

The machinery will be driven by three steam-engines, the largest of 200 horse-power, and will be capable of working up 1,000 tons of bar iron per month into chains of every size and description, from the heaviest cable down to the smallest dog chain.

Mr. DENNIS has three different machines, adapted to the manufacture of small, medium and heavy chains; the largest will weigh about six tons, and will require the aid of only one man to turn out the heaviest cable chain. He has also got up improved machinery for making rings and shackles. It is not probably generally known that the immense amount of chains used in this country are nearly all imported. The persevering efforts of Mr. DENNIS to perfect machinery by which an article so extensively consumed here may be manufactured in this country in successful competition with the cheap hand labor of Europe, entitles him to much credit as a mechanical engineer.

COMMERCIAL PROGRESS IN EASTERN ASIA.

By PERRY McDONOUGH COLLINS, *Commercial Agent of the United States for the Amoor River.*

I. RUSSIAN SETTLEMENT OF THE AMOOR. II. STATISTICS OF PRESENT COMMERCE AND NAVIGATION OF THE AMOOR. III. MODES OF CONDUCTING COMMERCE BETWEEN THE AMOOR AND THE CENTRAL PROVINCES. IV. CLASSES OF FOREIGN MERCHANDISE REQUIRED FOR CONSUMPTION IN ASIATIC RUSSIA. V. NATIVE PRODUCTIONS ADAPTED FOR EXPORT. VI. IMPORTANCE TO RUSSIA OF COMMERCIAL AND TELEGRAPHIC COMMUNICATION BETWEEN THE AMOOR AND CENTRAL PROVINCES. VII. EXTENT AND NATURE OF THE AMOOR REGION, MONGOLIA, MANCHOOIA AND EASTERN SIBERIA. VIII. COMMERCIAL AND BOUNDARY TREATIES BETWEEN CHINA AND RUSSIA.

At about the epoch of the accession of the present Manchoo dynasty (1642) over China, the hardy Russian exiles, gold-diggers and fur-hunters, led on, probably, by some daring Cossack, who had emigrated, either with or without his own consent, to the head waters of the Amoor, began to extend their hunting and fishing excursions, mixed, perhaps, with a little freebooting, along the shores of the Amoor to the east. Most probably the whole course of the Amoor to the sea was well known to these hardy pioneers, and that some trade was even had with the Kamchadales.

The boldness and audacity of these Nerchinsk hunters soon brought them into conflict, upon the southern shore of the Amoor, with the constituted authorities of the Manchooks; for their appropriating propensities did not always allow them to distinguish, with the precaution of good neighbors, between the absolutely wild herds of deer and elk and the half-wild herds of cattle, horses and camels of their Manchoo neighbors. Serious conflicts soon took place, and complaints were made to the supreme authority of China against the marauding Russians. The progress of these free hunters of the Nerchinsk was, however, so rapid and so successful, that fortified camps or towns began to be established upon the north shore of the Amoor, several hundred miles in advance of imperial Russian title to the soil.

Escaped convicts, desperate and hardy adventurers, with the riff-raff of a convict, Cossack and mining population, joined heartily in the fortunes of these new and distant settlements, where Russian power and law for the punishment of crime had not yet reached.

The Russian government unquestionably sympathized with these enterprises on the high-road to the Pacific, and was willing enough to let them go on, watching its own opportunity to make them legitimate.

CAM-HI, a Manchoo, coming to the throne of China about this time, saw plainly enough, that if the Russians were not promptly restrained but little of the vast territory of the Amoor would remain to China. He accordingly set on foot an expedition to drive the Russians from their comfortable quarters at Albasin, which was the chief point of Russian strength.

The Albasinians, finding they were to have serious trouble, perhaps a bloody conflict with organized Chinese troops, repaired to the Russian authorities of Nerchinsk, after the example of Yermack to the Emperor, to hand over to the government all the newly-acquired territory and posses-

sions, together with themselves, on condition of receiving aid to repel the expected Chinese troops—the Russian government granting a full and free pardon to all of her subjects found upon the Amoor who had taken a hasty leave of absence on their own authority.

The two governments were thus soon brought into armed conflict, but CAM-HI's soldiers were too numerous on the Amoor; Albasin capitulated, the Russians retired within their stipulated borders, and the Chinese power ruled supreme on the whole line of the Amoor to the sea; and not long afterwards Chinese ambassadors, escorted by a numerous and well-appointed army, with a train of artillery, presented themselves before the gates of Nerchinsk, and constrained GOLOVIN, the Russian ambassador, to conclude a treaty, by which Russia abandoned all claims to the Amoor country, or navigation upon its waters. Since that day, 27th August, 1689, up to about 1853–4, the commerce and military operations of Russia to the east, towards the shores and coasts of the Ohotsk, Kam-schatka and her American possessions, have been conducted by an immense detour to the north, by way of Yakutsk to Ohotsk or Ayan, and thence distributed, the furs returning to Kyachta and St. Petersburg over the same road. Thus for near two centuries has Russia awaited patiently the development of her power and the right opportunity to seize upon the Amoor and hold it.

Up to the close of 1860 we have reliable information of the following steamers and steamships either navigating or preparing to navigate the Amoor and its approaches: AMERICA, MANCHOOR, JAPANESE, sea-going, built in the United States; two river steamers, LENA and AMOOR, constructed in Philadelphia, iron, shipped and set up at the Amoor; one on private account, at Boston, and two at San Francisco. The Russian government built two at Shilka, over two thousand two hundred miles by the course of the Amoor and Shilka rivers from the sea, and steamed them to the Straits of Tartary. The Russian government has also partly organized a force of ten small courier or mail steamers, which are to keep up postal and military communication along the whole course of the Amoor, Shilka and Ingodah rivers, and connect with the Chinese and Siberian system of overland communication at Irkoutsk.

The Amoor Company (Russian) have had constructed in Europe one steamer, sea-going, and five river steamers. The Russian American Company has two sea-going steamers which visit the Amoor where the headquarters of the company for the Pacific is now located.

From the fact that Nicolivsky, the port of the Amoor, is a military post, and not a commercial port, under custom-house regulations, no exact return of merchandise entered can be given. The papers, manifest and bills of lading of vessels are handed over to the captain of the port, and by him retained until they sail. There being no custom-house, or duties, the value of cargoes stated cannot be relied upon, because it is the policy of merchants frequenting the Amoor to conceal as much as possible from rivals the nature and extent of cargoes taken there for sale.

In 1856, first year of foreign intercourse, only two foreign ships entered the Amoor—both American. In 1857 seven merchant ships arrived in the Amoor, with cargoes amounting to 500,000 silver roubles. In 1858 four ships entered with 805 tons freight for government, and merchandise amounting to 174,650 silver roubles, including 72,444 roubles in

value of Russian production. In 1859 thirteen foreign merchant ships arrived at the Amoor. The total traffic from foreign countries and from the upper Amoor, amounted to 1,090,714 silver roubles; at Nicolawsky, from the upper Amoor, 140,114 silver roubles, while the total import and export amounted to 1,230,829 silver roubles.

The port of Nicolivsky has 2,183 male and 369 female inhabitants. There were forty-nine government houses and two hundred private residences, besides twenty-seven government houses uninhabited. There were twelve stores, of which five were American, making in all two hundred and eighty-eight houses.

Among the inhabitants were 1,518 military, of all grades, with their wives and attachés.

In 1859 there were seven foreign merchants, five of whom were Americans.

In 1860 the amount of merchandise received was greater than the previous year, though the sales, owing to temporary causes, had not been so profitable. One American house had withdrawn, but three others had been added. One of the Amoor Company's steamers had ascended the Amoor, but to what point it is not stated.

The number of vessels entered is not stated, but supposed to be ten to fifteen.

Again, in regard to the commerce to the Amoor in American bottoms, we can get no returns of clearances from American ports, because, with but two or three exceptions, vessels intended for the Amoor have cleared for "ports in the Pacific," consequently, the true returns are not to be had.

In the figures given above we have only a partial statement of the actual value of commerce at the Amoor. The great probability is that the transactions of the government in the purchase of machinery, naval stores and provisions, nor the commerce of the Russian-American Company, are included. During 1856 and 1857 fully 700 barges and rafts descended the Amoor from the Trans-Baikal province of Caston Siberia, freighted with munitions, provisions, merchandise and live-stock. The most of them for government account, but the Russian-American Company and private parties had some share in the expedition.

The Amoor is formed by the junction of the Schilka and Argoon, in 121° 40' E. L., and 53° 30' N. L., and, after a very tortuous course of two thousand miles, falls into the Straits of Tartary, in about 140° E. L., 53° N. L. The Amoor is navigable for steamers its whole length.

The winter is severe, but not much more so than Moscow, or in equal degrees of latitude on the Volga. The natural floral and cultivated productions of the country indicate a good grain, fruit and grass country, being also well adapted to the rearing of flocks and herds.

The province of Trans-Baikal, (Eastern Siberia,) which lies in part upon the head-waters of the Amoor, viz., the Schilka and Argoon, contains a population of 340,000, and is the chief source in Eastern Siberia from whence the Russian government procures its silver; the mines are rich and extensive. These mines are, however, worked only by the government, but it is reported that they are soon to be opened to the public.

The Amoor is free from ice, and navigable from May to November, which will compare favorably with the navigable season at St. Petersburg.

There is plenty of time and plenty of water, with properly constructed steamers and barges, or keel-boats, to conduct the commerce, during open water, to such points upon its head-waters as convenience and experience may decide upon, where the overland conveyance will be ready to distribute it to the remotest points of the interior. During the winter all the return produce of the country will be concentrated at these dépôts, ready for shipment to meet the sea-going vessels arriving at tide-water in the spring, and thus the commerce will be regularly and conveniently conducted much on the same plan as at St. Petersburg.

To what extent, or how advantageously this new field of Oriental Asiatic commerce is to be occupied by Americans, depends upon the sagacity and nerve of our merchants.

At first the commerce to the Amoor will be most profitably conducted by sailing vessels; barks of two hundred and fifty to three hundred and fifty tons burden being, in my opinion, the best fitted for that trade. Schooners of one hundred to one hundred and fifty tons may also be employed, for special voyages to Japan, China or San Francisco. Vessels should be of good beam, and not more than ten to twelve feet draft.

Upon the Amoor there should be two classes of steamers: 1st. Side-wheel, of three hundred tons, with a draft of six feet. These would navigate to the mouth of the Zea, or about two-thirds of the distance, and may, in the early summer, reach the head of the Amoor. 2d. Stern-wheel steamers, having twenty feet beam, one hundred and thirty to fifty feet long, with four to four and a half feet hold, and ample power. These steamers would reach the head of navigation, and place their cargoes at available points, from whence sledges, wagons and pack-trains would distribute them throughout the interior of Siberia and Tartary.

Steamers on the Amoor are absolutely necessary to its commercial development. We cannot look, at first, to the immediate shores of the river for any large development of commerce; it is to the Siberian and overland trade from whence we are to reap the first great results. This can only be accomplished by a regular, certain and well-organized system of steam navigation throughout the whole length of the Amoor, Schilka and Ingodah rivers. Dépôts of merchandise must be established, at points upon the head-waters of the Amoor, where the Siberian, Chinese and Tartar tradesmen may resort at all times, and where they may, beyond peradventure, find a full supply of such commodities as they desire. There must be no failure in the supplies on hand at these dépôts, because Moscow, Nijne, Navgorod, St. Petersburg, Peking and Irbit are at great distances, and a failure of supply on the Amoor would be the loss of a year's supply to the trader, and consequently he would lose faith in the Amoor, and seek other marts for his supplies.

The kind of merchandise at first introduced must conform to the choice of experienced Siberian and Northern Chinese merchants. As we progress, we may introduce new articles and more extensive varieties, as well as to manufacture for them goods of such exact pattern, finish and style as they may order, which will become a very important branch of commerce.

By penetrating at once to the head of the Amoor, we tap a regular, well-established and systematic commerce, both Asiatic and European, a commerce that has been conducted with great success and much spirit for a long time. Here we may take our stand and build upon a sure

foundation. The increased development and extent of this commerce depend much upon the class and calibre of merchants who initiate it; they must neither be wanting in mind or in dollars. It is a wide field, and a distant one; its cycle is a year, consequently patient capitalists only can enter it with any hope of success.

The lower Amoor and Manchooria are not to be forgotten; but, as they are on the high-road to Siberia, and always within our grasp as we are passing along with our well-freighted steamers, to supply them is a very easy matter.

The favorable and enlightened policy of the Russian government has already given us free trade for five years, and Count MOURAVIEFF, who is the father of the annexation of the Amoor to Russia, is in favor of a prolongation of this liberal policy; in fact, the progress and importance of Russian interests in Asia, under Count MOURAVIEFF's administration of the government of Eastern Siberia, has given him great power and influence, and his views are very likely to prevail.

As evidence of the importance that Russia attaches to her new possession upon the Pacific, we have only to mention the fact that the government is now constructing a line of telegraph, which is to connect St. Petersburg with the mouth of the Amoor and other points upon the Pacific coast, and along the whole northern border of Chinese Tartary. The line will be in operation this year as far as Omsk, in Western Siberia, one-third of the distance from St. Petersburg to the Pacific; in another year it will reach Irkautsk, or probably Kyachta, and so on, in the course of the third year, we may expect it to reach the ocean.

The project now on foot, to tap the Russian line at the Amoor, and carry a line of telegraph *via* BERRING'S Straits, to unite with the California overland line, will give us telegraphic union with Europe; in fact, with the whole world. Nor is this project so difficult, upon investigation, as it at a first glance appears; the climate presents no impediment, and there is but forty miles of ocean to cross.

The extent of country opened to commercial contact through the Amoor is a matter of interest.

The valley of the Amoor covers from west to east about 40° longitude, and north to south about 13° latitude, probably nearly a million square miles of territory, with a population of some five millions.

Mongolia, Songaria, Northern and Central Tartary, cover a vast extent of territory, six hundred miles wide by two thousand long, with a population of probably ten millions.

These people are rich in cattle, sheep, horses and camels; a barter of merchandise for their hides, skins, pelts, wool, hair and tallow would be large and lucrative.

Eastern Siberia, which would be tributary to the commerce of the Amoor, is also a vast country, covering a million of square miles, with a population of two millions to three millions of European blood.

This immense country is dependent, to a great extent, on Europe and China for its fabrics of cotton, silk, flax and wool; to estimate the value of commerce on the specific supply and demand is quite impossible from present data. We know that the Kyachta tea trade has developed a commerce of fifteen to twenty millions of dollars per annum; what amount of European merchandise Siberia consumes we have no precise knowledge, but we may safely put it at ten millions.

The fair supposition is, that every inhabitant will consume six yards of cotton cloth yearly, and we only put this as an illustration of the value of commerce in one single item, which must govern us in making up the future of this commerce. This would give us 102,000,000 yards of cotton cloth, worth, delivered, certainly ten cents a yard, amounting to \$10,200,000.

A very reasonable and important question to be answered is: How are we to be paid for what these people want? Where are the millions of hard dollars to come from out of this wild and distant country, to compensate or equalize this commerce?

To begin with Siberia: she is the California of Russia; her mineral wealth is absolutely beyond any reasonable array of figures. She exports to Russia about \$15,000,000 of gold yearly; need more be said?

She has copper, plumbago, tin, silver, marbles, iron, salt, bitumen and precious stones.

She has hemp, flax, furs, skins and peltry, wool, tallow, wax, honey and ivory.

She has tar, pitch and turpentine. All these are elements of wealth, and the contact of an extra-territorial commerce, proffering articles of necessity, convenience and luxury, must excite her population to make an exchange.

Mongolia and Tartary have their skins, pelts, wool, camels' hair, hides and tallow. To these must be added Thibet musk, Bucharian rhubarb, pearls and precious stones.

What can be the amount of these articles that these people will have for export? I do not know—but one item I can suggest. Mutton is the chief article of diet, and I suppose, from my own experience and a knowledge of Tartar appetite, that three sheep *per capita* per annum to the whole population would be a very reasonable allowance. Here we have thirty millions of sheep skins, with the wool included, as one item of the production of this country.

Manchooria and the Amoor river country comes next; here foreign commerce has, up to within a very recent period, been absolutely excluded. It is only since Russia has made this eastward step that outside barbarians have been permitted to look into this country. While Mongolia is strictly a pastoral country, Manchooria is both agricultural and pastoral; yielding, besides, all the more northern grains, corn, rice, silk and ginseng.

Heretofore the commerce of this country has been, of necessity, all directed towards Peking and Corea; but may we not hope that in a contact along the whole northern border of the Manchooria that a very large and lucrative commerce can be introduced? Like the Mongols, the Manchoes have abundance of cattle, horses and sheep, but having bread, their diet is not so strictly carnivorous as the Mongols.

The Manchoes have, however, many fine furs, beside the skins and pelts of wild animals.

The wilder portion of the Amoor country, which now belongs to Russia, that is, all north of the Amoor River, and all east of the Ousuree, from its confluence with the Amoor, and following the Ousuree to the south through Lake Hinka, and on to the border of Corea, forms again a distinct subdivision of this part of Asia, in extent covering, probably, not far from 300,000 square miles. This country has an aboriginal popu-

lation of some sixty thousand; what the Russian and Manchoo population may be is difficult to state with any degree of certainty.

The Russian government has already commenced a system of colonization both from Europe and Siberia, and is actively engaged in fortifying its approaches seaward, and in planting military posts and opening post-roads in order to protect the frontier and afford facilities for certain and rapid overland communication at all seasons of the year.

The demand for foreign commerce is of course restricted to mere necessity, and to the actual population of the coasts and borders of the river, because, as yet, steam has not succeeded in presenting to the upper and distant populations stores of merchandise to save them the necessity of the overland, European and Chinese supply.

This country is rich in fur animals, the rivers abound in fish, and gold is found in the mountains to the north of the Amoor. The forests, both upon the Upper and Lower Amoor, are fair and abundant, with ample resources for naval stores and timber for all economic purposes.

The island of Sak-ha-lin, opposite the mouth of the Amoor, abounds in extensive deposits of coal suitable for steam vessels, accessible and already worked by the Russian government.

The steady and onward progress of the present Emperor of Russia, ALEXANDER II., in ameliorating the condition of his people, and in encouraging internal commerce and communication, will open a vast field to American enterprise and commerce.

The Mouravieff-Igoon Convention, ratified by the Ignatieff-Pekin treaty, has annihilated all of those ancient border restrictions against free intercourse between the Chinese and Russians.

Under this treaty, merchants and traders may freely cross the frontier and establish themselves in such towns and cities as they choose, the police authorities being specially directed to protect them.

This liberal policy will give great stimulus to the Siberian and Amoor merchants, and must lead to the introduction of European and American merchandise and manufactures into the interior of the whole length and breadth of Tartary.

We have also a recent ukase of the Emperor, granting to foreigners equal privileges with the native Russian merchants in all parts of the empire. This ukase will explain itself, is one of great liberality, and must lead to most important results, opening, as it does, this vast empire to the merchants and bankers of the world.

On the 7th-19th July, 1860, the Emperor addressed to the Senate the following ukase:

"The Imperial manifest of the 1st January, 1807, has set certain restrictions to the commercial rights of foreigners established either permanently or temporarily in Russia. Now with the improvements introduced in the means of communication, and the rapid development of the international commercial relations, said restrictions do not agree any longer with the necessities of the present times. On the other hand, the principal European powers allow our subjects, as in general to all foreigners, to carry on commerce in their countries on the same terms as their own subjects.

"Taking into consideration the useful influence that would result to all branches of public wealth by an extension granted to the facility of profiting by use of foreign capital in all kinds of enterprises, and desirous

to give, at the same time, a new proof of our particular solicitude for the general prosperity of trade, agriculture and of industry in the Empire, and show, at the same time, a just reciprocity towards foreign powers, we have thought proper to grant, in this respect, to foreigners residing in Russia the same rights as our subjects enjoy amongst the principal European nations.

"Consequently, and in accordance with the opinion of the Council of the Empire, we decree:

"1st. It is allowed to foreigners to inscribe themselves in all the guilds of merchants in like manner as the subjects of the Empire, and to enjoy all the commercial rights that those guilds give to Russian merchants. (*Art. 77, à 107 du règlement sur le commerce, tome xi., du corps des Lois, de 1857.*)

"*First Observation.*—The foreign Israelite subjects, known by their social position and by the great extent of their commerce, who arrive from abroad, can, according to the order established—that is to say, on a special authorization each time by the Ministers of Finance, of the Interior and of Foreign Affairs—trade in the Empire and establish banking-houses on procuring a license of merchant of first guild. It is also allowed them to establish factories, buy and take on lease real estate, according to the resolution of the present ukase.

"*Second Observation.*—The commercial rights granted to Asiatics are resolved by the articles 227 to 233 of the commercial regulations. (*Tome xi., corps des Lois, édition de 1857.*)

"2d. The safety of the domicil and of the magazines of foreigners, as well as of the lands that appertain to them, are placed under the protection of the common law; no search can be made in their dwellings, nor in their commercial books, but in accordance to the regulations prescribed in such cases to Russian subjects of the same condition.

"3d. Foreigners can acquire—be it by purchase, be it by inheritance, legacy, donation, concession of the Crown, etc.—all kinds of movable and immovable property, with the exception, however, of that which the hereditary Russian nobility and foreigners who have obtained the right can alone possess in virtue of laws in force.

"4th. Foreigners, with the exception of Israelites, can direct, under title of clerk, inhabited lands, if they have the procuration of the proprietors to that effect. It is also allowed them farms, according to agreements allowed by the laws, real estate occupied, and of any other kind, inhabited or not, by conforming only to the condition and restriction imposed upon the subjects of the Empire. (*Code Civil, livre iv., cest. iii., ch. 2.*)

"The Senate will take the necessary measures for the execution of the present.

"ALEXANDRE."

In order to make this subject more readily comprehended by our readers, we annex in full the report to the House of Representatives in February last. It is one of the most important commercial subjects of the day.

SURVEY OF THE NORTHERN WATERS,

COASTS AND ISLANDS OF THE PACIFIC OCEAN, &c.

Mr. JOHN COCHRANE, from the Committee on Commerce, made the following report, February 18, 1861 :

The Committee on Commerce, to whom was referred the memorial of PERRY McD. COLLINS, asking the aid of Congress, in order to make a thorough exploration and survey of the coasts, islands and seas of the Russian possessions, both in Asia and America, from the mouth of the Amoor River, in Asiatic Russia, to the confines of the Russian possessions in America, adjoining the possessions of Great Britain, in view of the construction of a line of telegraph, which shall unite the city of New-York, in the United States of America, and consequently the whole of the United States, Canada and the British possessions in America, with not only London, but with all the great capitals of Europe and Asia, respectfully report : That the committee have had under consideration the said memorial, and, after mature reflection and a study of the importance of the proposition, have been deeply impressed with its great value to commerce.

In the first place, what is it that Mr. COLLINS proposes ?

"The telegraphic union of Europe with America, overland, *via* Asiatic Russia and BEHRING'S Straits."

Can this be accomplished ? Let us see.

It is already known to practical working telegraphists, that high latitudes add to rather than retard the electric current. During snow-storms the escape of electricity over the common wire and pole telegraph is essentially diminished ; thus, while rain and moisture are good conductors, snow, ice and a dry, cold atmosphere are good non-conductors or insulators ; consequently, high latitudes are favorable to the free and rapid passage of the electric current.

But in this connection we do not have to depend upon theory alone to substantiate the truth of the foregoing proposition ; we have existing lines of telegraph stretching from Berlin to Vienna, from Vienna to St. Petersburg, from St. Petersburg to Moscow, and from Moscow eastward to Perm—all to the north of 47°, and as high as 60° north latitude. Here, then, we have positive and irrefragable proof of the practicability of telegraphic communication in very high latitudes.

Being satisfied that telegraphic communication can be successfully maintained in high latitudes, we will, in the next place, inquire as to the country over which it is proposed to construct this line, in view of its practical maintenance.

It is well known, that from Moscow to Kamschatka the Russian government hold absolute sway, and have a continual system of overland communication, absolutely free from interruption, so far as the inhabitants of the whole intervening country is concerned. There is not on the whole line a single hostile tribe or nation. The absolute, the peaceful, the patriarchal sway maintained by the imperial government over this vast extent

of country might be a profitable, a humane and a practical study of our own government in the control and government of the red tribes inhabiting the great interior of our own country, from the borders of Missouri to the Sierra Nevada Mountains and the Pacific Ocean.

The accompanying papers indicate more precisely the different routes by which it is proposed to reach the American shore. Therefore, we do not propose to examine them in detail. We will not refrain, however, from expressing our conviction, in view of all the difficulties, physical, mechanical and experimental, that the route which involves the least amount of submerged cable should take preference. Up to the present time experience has proved that submerged cables of any great length are, practically, of no value for telegraphic purposes. Without going into lengthened or tedious detail, we have sufficient evidence of the truth of this proposition, not in isolated or unimportant cases, but in gigantic and costly efforts to unite continents.

First in time and place were the efforts to unite Europe and Africa, next Europe and America, and lastly Africa and India. All these great schemes have failed, apparently from physical difficulties; for if science, ingenuity, hardihood and indomitableness ever gained a victory by their united efforts in a great cause, we certainly should have had, ere this, telegraphic communication nearly around the earth. We all know the history of the Atlantic cable, and of other long, deep-sea cables, but perhaps the facts in regard to the Suez and Kurachee cable, or, as it is more familiarly known, "the Red Sea cable," because quite recent, may be instructive.

The British government, being very anxious to establish telegraphic communication between her own insular shores and her far-off Indian possessions, determined either to construct or to encourage to be constructed submerged lines from England to Gibraltar, from Gibraltar to Malta, thence to Egypt and overland to Suez, from whence a cable was to stretch along the bottom of the Red Sea to Aden, along the Arabian coast to Muscat, and thence under the Arabian Sea to the mouths of the Indus.

This gigantic work was to place Bombay, Calcutta and Singapore in the immediate and visible presence of the Foreign Office, where, in peace or in war, by night or by day, secured from friend or enemy, from accident or design, the premier and viceroy could hold council over the destinies of India, six thousand miles distant.

Under tenders to the British government a company was formed, with a capital of £1,000,000, for the construction of the line from Suez to Kurachee, in India. Five per cent. interest per annum was guaranteed by the government for fifty years upon the capital; provided, only, that the company expended the money in good faith, whether the cable proved permanently a working telegraph or not. These were the best terms the government could get; the contract was made, and the cable has been submerged; it worked for a short time, and then, like its great predecessor, the Atlantic cable, ceased to speak.

Very recent accounts tell us, that after every effort upon the part of the most able and efficient practical telegraphists, like the Atlantic cable, it has been abandoned to the fishes, and remains only as another gigantic monument to the perseverance and liberality of the English government and nation in works of public utility and national import-

ance. Thus we perceive that, up to the present time, some ten thousand miles of deep-sea submerged cable has been lost or abandoned, costing, in the aggregate, not far from ten millions of dollars. We therefore consider, that without some new plan by which a telegraph can be constructed, or the application of some new principle in electricity by which the known difficulties can be overcome, Europe and America must remain as far asunder as if electricity had never been discovered, or MORSE, WHEATSTONE, AMPHRE and SIKKENS never had lived.

But must mankind, by the intervention of the Atlantic Ocean, be forever barred from the advantages of this agent? We hope not.

MR. COLLINS has, we think, demonstrated the practicability of the construction of a telegraph line from Moscow to the shores of the Pacific Ocean. Here he was compelled to pause in the personal inspection and exploration of the proposed route, for want of adequate means to cross to the American coast. We perceive, in tracing the route over which it is proposed to construct this line of telegraph, that there are many elements of success in it, besides the fact that no very large bodies of water obstruct its pathway.

The Russian government is now engaged in pushing forward a line to the East, which has already reached Perm, one thousand miles east of Moscow, and is to be continued to the mouth of the Amoor. This line, with its system of lateral branches, unites the whole of Europe, taps the Caspian provinces of Russia, Circassia, Georgia, Persia and British India, and, consequently, whatever telegraphic connection may exist between Europe and Africa.

Penetrating eastward through the extensive mining districts of the Ural, it leaps from town to town and city to city, until Omsk is reached, from whence a branch will penetrate to the frontier of Chinese Tartary and Kokhan, on the route of the great central caravan trade, vibrating through that immense country between Persia on the west and Manchouria on the east.

Pausing for a few moments at this point, we should take at least a hasty glance of a country which may in a few years figure as one of interest. Russia has been steadily pushing at this point to the south, until she has touched, as it were, British India; not that she has as yet joined territory, but that she has tapped Indian commerce. Turkistan to the west, Thibet to the south, Bucharia, Koko-Nor and inner Mongolia to the east, all combine to make this *southern central wedge*, driven by Russia into the very heart of *Central Asia*, a point that must eventually gather around it an extended and lucrative commerce.

This *central gate of inner Asia*, through which the whole commerce of a vast and populous country must flow, is renowned in history as the pathway of nations—the only practicable pass between Eastern and Western Asia as a central route. Through this *gate* the Great Mogul, GENGIS, led his victorious hosts, under the banners of a thousand chiefs; where OCTAI and TIMOUR followed, and where MARCO POLO saw an Asiatic Italy, rich in fruits and vines, wines and silks, and all the marks of wealth and luxury.

The approach of Russia to the centre of *Northern India* is really a matter of interest to the civilized world, because it will evidently open that hitherto sealed country to the knowledge of the world and to commerce. It is only a little to the south of the point gained by the late

Russian-Chinese treaty that the great pioneer in Asiatic exploration, MARCO POLO, passed, on his way to the court of KUBLAI KHAN.

Yarkand is but five degrees south of the Russian post of Varnoë. MARCO POLO describes the countries through which he passed on the line of Casgar, Yarkand, Hoton and Pein. He says: "That these countries contain many castles and cities; that the people, besides much merchandise and manufactures, have fine gardens, vineyards and orchards, with a good supply of silk, and all necessities in great abundance; cotton is also grown, and the artisans are most skilful; they have also many precious stones."

In fact, MARCO POLO's description of the countries passed through in these *central* regions make them quite a second Italy in climate and productions.

The province of Hoton alone is estimated to have (now) a population of two millions and a half. It is through this country, which is, as it were, a gate, in consequence of the approach of the Altai chain of mountains from the north and the Himalaya from the south, without uniting, that an easy passage is found from Eastern to Western Asia, and may be compared, physically, in some respects, as a means of communication with the Gila route, in traversing our continent.

At the Gila the Rocky Mountains have been broken down, while the Sierra Madre have not yet raised their formidable barriers. Now, suppose the Atlantic side had a population of some three hundred millions, and the Pacific side two hundred millions, even without rail-roads or steamboats, one could very readily conceive that there would be a very large commerce between the two sections through this pass, even if it had to be carried on the backs of animals, or even of men. But with the hardy Bactrian camel, a train of which is nearly equal to one of our great freight trains on a rail-road, the commerce would of necessity and naturally be very considerable. Such is the gate of *Central Asia* now.

The most southern outpost of Russia in this section is in about 43° north latitude, and 78° east longitude; Yarkand is 5° southwest; Samerkand, Kokan and Bucharia west by south; on the high caravan route to Persia *via* Yarkand, Saddak and Cashmere, you reach Cabul; while through Hoton and Murgan the Koko-Nor is reached on the navigable waters of the Ho-ang-ho.

Saddak, it must be remembered, is on the waters of the Indus, and consequently on the high road to British India, and only 8° southwest of the Russian frontier. A glance at the map of Asia will at once show the importance of this gate; and if Russia should will to set up a great national fair there, an Asiatic Nijne-Novgorod would soon spring into existence.

It is not necessary to follow very closely the route proposed to be traversed by the main trunk line of telegraph; we see that it follows along the great post and caravan route, reaching from Moscow to the heart and centre of Russo-Chinese commerce at Kyachta, about four thousand miles to the east.

After leaving Omsk, we have found many towns and cities besides Irkoutsk, the capital of Eastern Siberia, at which point concentrates the commerce of a vast country. Irkoutsk holds the keys and unlocks all that is to the east for the west, and all that is to the west for the east—a beautiful city, half barbaric, half Asiatic, where refinement and the

civilization and the energy of Europe have met, subdued and utilized the fierce hordes of the Steppes.

From Irkoutsk to Kyachta, and from Kyachta to Peking, Nankeen, Shanghai, Amoy and Hong Kong, seems to be the natural route, all by land, which shall place China, from the great wall to the sea, all under magnetic influence.

From this, *via* the Amoor River, to the shores of the Pacific Ocean, though a new field, is one of much interest; and though but recently brought to the knowledge of the country through the report of Mr. COLLINS' explorations, recent events have brought it prominently before the commercial world. By the treaty between China and Russia, concluded at Peking on the 14th November, 1860, it is provided:

"ART. 1. Henceforth the eastern frontier between the two empires shall commence from the junction of the rivers Schilkah and Argoon, will follow the course of the river Amoor to the junction of the Ousuree with the latter. The land on the left (north) bank of the river Amoor belongs to the empire of Russia, and the territory on the right bank, (to the south,) to the junction of the river Ousuree, to the empire of China. Further on, the frontier line between the two empires, from the point of the issue of the river Sou-gat-chu, divides the Lake Hinka, and takes the direction of the river Be-lin-ho; (Tour;) from the mouth of the river it follows the mountain range to the mouth of the river Houp-i-tou, (Houp-tou,) and from thence (that point) the mountains situated between the river Koun-choun and the sea, as far as the river Thou-men-Kiang. Along this line equally the territory on the sea-side belongs to the empire of Russia, and that to the west to the empire of China. The frontier line rests on the river Thou-men-Kiang, at twenty Chinese versts (li) above its mouth into the sea."

"On the whole of the frontier line established by this treaty trade free of all duties or restrictions is established between the subjects of the two empires. The local authorities are bound to give special protection to such trade, and to those who exercise it."

Free intercourse is also extended to the citizens of both nations. Thus, at one stroke, the barrier of Chinese exclusiveness has been broken down along the whole northern boundary, and the Amoor River has been opened to free trade from its sources to the sea. This new liberal commercial and boundary treaty must soon work a wonderful change in the interior commerce of that vast country, and must make the Amoor River a great commercial highway.

Tributary to this river there are many millions of people, whose trade and commerce must be vastly augmented by steam, rail-roads and telegraphs. This commerce must naturally find outlet to the Pacific through the Amoor, where our merchants may congregate, and with their ships distribute it to the markets of the world.

From the mouth of the Amoor another lateral line of telegraph is proposed, to extend to Yeddo, the capital of Japan; this is accomplished by crossing to the island of Suk-hah-lin, to Jesso, to Nippon, upon which Yeddo is situated, with about only twenty miles of submerged cable. Thus we have progressed from Moscow to the shores of the Pacific Ocean without meeting with more than the ordinary physical difficulties on great lines of telegraph, and have, in a very hasty manner and to a very inconsiderable extent, touched upon the trade, commerce,

population and resources of this vast country, yet in the main locked up from the approach of exterior contact and commerce.

We have shown how, by its own local and intrinsic merit, *this route attracts and attaches* to itself the whole European system of telegraphs, and also how naturally the Caucasian, Persian and Indian nations are made tributary to it; and, as we progress to the east, other nations, including China and Japan, are all, as it were, embraced in its ample folds. Having, therefore, as we conceive, annexed Europe, Asia and Africa, we have yet America to reach, in order to encompass the whole earth.

From the mouth of the Amoor, in order to reach America, there are several routes proposed. Whichever may be the most practicable should be most unquestionably selected. We do not propose to enter into any lengthened argument for or against any of the particular routes; but we have come to the conclusion that until the route *via* BEHRING'S Straits shall be, upon full and fair investigation, pronounced impracticable, to be the route to which we should give our attention. By this route submarine cables are dispensed with, except at one point—the crossing of the straits—and then only to the extent of forty to sixty miles, which may be divided into shorter sections by using islands lying in the straits.

The advantage of this route over all others is so patent, in view of the necessity upon any other line of long submerged cables, that it has only to be stated to be at once fully appreciated. We do not, from all the light before us, believe that the physical difficulties in the way are of such a nature as to be insuperable, though they may be very great. Our greatest apprehension arises from the presence of savage tribes along a portion of the route as you approach BEHRING'S Straits, over which, as yet, the Russian government has not exercised absolute control. This objection may, however, be very materially modified when we come to know, by actual contact, how far these tribes are to be controlled, even without force.

It is not apprehended that any unusual stubbornness or difficulty will be encountered, not incident to most of the red tribes, both in America and Asia. However, the cause is worthy of the trial; and until it is known that they cannot be controlled sufficiently to permit the passage of a telegraph through their country, we shall be in favor of the attempt.

It is not considered that on the American side much difficulty will be encountered, except in a portion of British Columbia; but it is to be hoped that the importance of the object in view will bring sufficient power to bear upon the difficulties to be overcome as to dissipate them all.

What are the probabilities and the prospects of the ultimate success of an overland telegraph to unite Europe with America? Let us see: In the first place, we have come to the conclusion that it can be done; and, in the next place, it is infinitely more practicable and likely to succeed than by any other route or mode yet suggested. In fact, we have come to the conclusion of its entire practicability, and that it only is a mere question of how much will it cost, and can it be made to pay as an investment? In an international, in a commercial, in a political, in a utilitarian point of view, it soars above all mere questions of cost, of profit and loss, of dollars and cents. It is one of those great works which very properly commends itself to the attention of all governments, because its value or importance cannot be measured by a mere money standard.

If it were possible, we think that the commercial nations of the world should unite in its construction, and donate it to progress and civilization. But as such a plan would be impracticable, the next thing to be done is to encourage the construction of it by private parties by all the means at our command.

Already, while we are writing, the work of progression is busy at both extremities; Russia is constructing her line eastward across the Urals, while the United States is engaged in pushing to the west over the Rocky Mountains and to the shores of the Pacific. Thus these two opposite forces are constantly diminishing the intervening space, and solving most effectually all doubts and difficulties as to the possibility of telegraphic communication overland between America and Europe.

Telegraphs, tending ultimately to unite America with Europe by the overland route, *via* BEHRING'S Straits and Asiatic Russia, are in progress of construction on both sides; Russia is determined to build her line to the Amoor, while the contract made by Colonel HIRAM SIBLEY with the United States government, to construct a line to California, insures a line from the Mississippi to San Francisco. Nor is this all; a line is in course of construction from California to Oregon. Consequently it will be perceived that there remains only the intervening space on the American side from Oregon to BEHRING'S Straits, some seventeen hundred miles, and on the Asiatic side from the Straits to the mouth of the Amoor, some two thousand two hundred miles, in all, say about four thousand miles, to complete the circuit of the earth. It would seem a small matter to fill up this intervening gap, when we take into consideration the immense interests involved.

We have already seen many millions of dollars expended in experimenting with long deep-sea cables, upon theory alone, in order to unite distant continents. It certainly looks to be but a small affair, to carry out this plan of connecting the Old with the New World, when we see that success is certain with our present knowledge of working telegraphs, and at a less cost than was incurred in laying the Atlantic cable.

Four thousand miles of land telegraph is no very great distance, when we see what has already been constructed and in progress of construction in America and Europe. The California overland line will be two thousand miles long, and will be constructed for about three hundred and sixty thousand dollars. In fact, the proposed line from Oregon to the mouth of the Amoor can undoubtedly be built for less than the Atlantic cable cost.

There are now in Europe some one hundred and fifty thousand miles of telegraph, and in America fifty or sixty thousand miles, producing a revenue of probably ten millions of dollars annually. Unite all these lines, and make them subsidiary to the great world-encircling telegraph, and it must become one of the most lucrative investments possible.

If this line should be finally constructed, it leaves nothing more for human enterprise to achieve in telegraphic communication, except to fill up gaps and construct lateral lines. It will encompass the earth over a route formed by nature, and to which there can be no rival. It accomplishes every thing, satisfies every interest, penetrates into every nation and country, pervades the whole earth.

Aside from telegraphic communication, there are other interests which would be materially benefited by this exploration and survey.

The Amoor is now open to free trade. A number of American ships and merchants have been attracted there already by its rising commerce. A number of steamers and steamships have been built in the United States, either for commercial purposes or connected with its rising fortunes as a Russian colony.

Again, in view of establishing steam communication between San Francisco and China by way of Japan, Hakodadi might become an intermediate station, which would rapidly augment American commerce in the North Pacific and adjacent coasts and seas; consequently a more thorough survey and knowledge of those remote coasts and islands would be highly advantageous to commerce. And, in this connection, a thorough search for the most favorable points from whence a supply of coal for steam navigation could be obtained would not be neglected. Coal is found on the Fox islands, on Jesso and Suk-hah-lin.'

Our Pacific whaling fleet, of which more than a hundred sail frequent the more remote coast and waters of the North Pacific, would be vastly benefited by such survey as the one proposed. Shipwreck and loss of life would be lessened by a better knowledge of those waters, which consideration should, if necessary, argue in favor of the proposed survey.

As to Russian America, so little known to our commerce (because of the exclusive grant to the Russian-American Company of its trade and commerce, internal and external) heretofore, we are likely, on the expiration of their grant, in 1862, to have a commerce also in that direction, when it will also be highly advantageous to have a better knowledge of its coasts and waters.

Under all the circumstances of the case, and in view of other benefits to be derived from the exploration and surveys as proposed by Mr. COLLINS, the committee recommend an adequate appropriation by Congress, in order to carry out successfully the views of the petitioner, and for that purpose report a bill.

SOCIETY OF THE AMOOR.—The Society of the Amoor (*Amourskaia Kompania*) is established in order to promote and develop commercial and industrial activity in the basin of the Amoor. To this effect, the society propose to establish commercial relations with the native inhabitants in the basin of the Amoor, in order to furnish them with all the objects they may desire, in exchange for skins and other products of the chase, or of their fisheries, and to provide the Russian colonies with all necessaries and other useful commodities; to carry on commerce, interior and exterior, through the ports of the Pacific Ocean, except upon the northwest coasts of America, the Allutian and Curile islands, which are reserved by an exclusive grant to the Russian-American Company until 1862; to found establishments and manufactures to develop the indigenous products of the country; to undertake to furnish various objects to the local authorities throughout the whole of Eastern Siberia; and to keep and maintain on the Amoor and its affluent, the Schilkah, steamboats and sailing vessels. * * * * The capital of the society is fixed, at first, at four millions of francs, divided into four thousand shares, of one thousand francs each.

COMMERCE WITH AFRICA.

TRADE IN IVORY AND BAWOOD—CAPE LOPEZ—TOBACCO PLANTATIONS—SUGAR CANE—COTTON.

Explorations and Adventures in Equatorial Africa; with Accounts of the Manners and Customs of the People, and of the Chase of the Gorilla, the Crocodile, Leopard, Elephant, Hippopotamus and other Animals. By PAUL B. DU CHAILLU, Corresponding Member of the American Ethnological Society, of the Geographical and Statistical Society of New-York, and of the Boston Society of Natural History. With Eighty Engravings. Octavo, pp. 531. HARPER & BROTHERS, New-York, 1861.

THE work of M. CHAILLU has created considerable excitement among the *savans* and *litterateurs* of London and Paris. He is somewhat known in New-York, having been long enough here to be sufficiently known and appreciated as to become a member of two leading societies in this city and of one in Boston. In London the writings of M. CHAILLU have been violently and repeatedly attacked by the *Athenæum* and other critics, while he is defended warmly by others; and this war has not yet ceased, nor his integrity as a man fully established. But giving a fair degree of credence to his work, we find much in it to claim the attention of the merchant and trader, and no slight materials for the earnest consideration of the philanthropist and statesman.

M. CHAILLU professes to have travelled extensively over the region of Africa included in the delta bounded on the north by the river Nazareth, which enters the sea in latitude $0^{\circ} 41'$ S. and longitude $9^{\circ} 3'$ E., and on the south by the Fernand Vaz, which falls into the sea in latitude $1^{\circ} 17'$ S. and longitude $5^{\circ} 58'$ E.

The internal trade with the natives is not direct between the foreign trader or the coast native merchant, but is carried on through various tribes having a limited territory on the rivers. Thus, a number of "middle-men" enforce a tax upon the export of native products, in the shape of commissions or profits upon each article. Thus, a piece of ebony or ivory, belonging originally to a native in the far interior, is intrusted to a dealer in the next tribe below; he, in turn, to the next chief or friend: and so ebony, ivory or rare woods pass through a dozen or more hands before it reaches the factory of the trader on the coast. Each of the tribes assumes to itself the privilege of acting as a go-between or *middle-man* to those next to it, and charges a heavy per centage or profit; and no infraction of this rule is permitted, under penalty of war. (Page 34.)

The far interior tribes are kept in ignorance of the high prices obtained for their products on their receipt at the coast trading points, and are compelled to submit to a loss of 75 or 90 per cent. in the net proceeds, and then take their pay in foreign coarse manufactures. All direct intercourse between the coast and the interior tribes is discouraged, and all possible obstacles thrown in the way of communication between the trader and the first source of supply. Upon the arrival of a ship, the captain is informed, that "never was there such a dearth of ivory," or whatever the captain may want; "never were the interior tribes so obstinate in

demanding a high price, never was the whole coast so bare, never were difficulties so great." "There have been fights, captain," "and fever, captain," "and floods, captain," "and no trade at all, captain;" finally, not a tooth to be had. (Page 37.) The author says (page 40 :)

"The chief product of the Gaboon country is its ivory. This is said to be the finest on the Western Coast. It produces, also, barwood, a red dye-wood, from which is obtained a dark red dye, and ebony, the last taken from the great forests of this wood, which abound near the headwaters of the Gaboon River. I have seen very large sticks brought thence, but the supply is not yet large. The barwood tree is found in great plenty along the shores of the river and its numerous tributary creeks. It is also found on the Moondah and Danger Rivers. Copal is another product of this country, but it is of inferior quality, and is not sought.

"Ivory comes down the river from the interior, by inland journeys, in great quantities. Upwards of 80,000 pounds are taken from the Gaboon River yearly, when home prices are good; for the ruling prices here are so high that traders cannot buy to advantage unless the home demand is very brisk. I suppose that the country from Banoko to Loango furnishes, in brisk years, at least 150,000 pounds of ivory.

"But, however important may be these commercial resources of the Gaboon country, I am convinced that the people will never prosper till they turn their attention more to agricultural operations, for elephants must finally disappear. This, indeed, is the great evil of all the nations of Western Africa. The men despise labor, and force their women and slaves to till the fields; and this tillage never assumes the important proportions it deserves, so that the supply of food is never abundant, and, as will be seen further on, the tribes, almost without exception, live from hand to mouth, and, with a fertile soil, are half the time in a state of semi-starvation."

One of the leading articles of export from the Gaboon country, a few miles north and south of the equator, is barwood, a red dye-wood. The continual demand for foreign fancy woods, in the American market, will require a regular supply of those that can be obtained from the interior of the Western Coast of Africa and other accessible portions of that part of the world. In fact the trade offers large inducements for the investment of capital from this country. Of the production of barwood, M. CHAILLU says :

"Barwood, as I have before explained, is a red dye-wood. It is the trunk of what the natives call the ego-tree, a large, tall, very graceful tree, with abundant branches high up, small bright green leaves, and a beautiful smooth reddish-colored bark. It is very abundant in the forests of this part of Africa. In fact, the supply may be considered as inexhaustible, the labor of bringing it to market being the most costly part of its production.

"Though great traders, these natives have no ideas about laying up a store of their products before it is wanted. This is what detains trading-vessels so long on the coast. When a vessel comes for barwood the news immediately spreads all about the neighborhood, and the men bestir themselves to get a supply down. There is great excitement among the villages; and this, particularly, if it happens that the chief of the village has friends among those to whom the captain has 'given his trust'—that

is to say, those with whom he is going to deal, and for whom he has brought goods.

"Every man immediately goes out to the forest and selects a tree for himself, which he begins to cut down. The barwood of commerce is the heart or main part of the trunk, and is red. This useful wood is surrounded by a covering of white sap-wood about two inches thick, which is useless, and is carefully cut off. Then the wood is cut into lengths of three feet, each piece weighing from fifteen to twenty pounds. The father and his children cut and split the wood and the wives carry it into the villages, and the latter thereupon claim a distinct part of the returns, which they get, though often unwillingly. Barwood is so low-priced in Europe that the natives here get but very small prices, and five dollars for a hundred billets is already a high rate. As they have to carry everything down to the sea on their backs, unless they are lucky enough to live near rivers or creeks, they have to work hard enough for the little they get."

One of the best harbors on the coast is Cape Lopez, latitude $0^{\circ} 36' 10''$ S. and longitude $8^{\circ} 40'$ E. from Greenwich, which takes its name from the Portuguese, who formerly called it Cape Lope Gonsalvez. The bay is about fourteen miles in extent, having several small rivers which empty their waters into it at or near its base. The water is very deep near the Cape itself, and vessels of large size may sail in close to the land. The productions of this region deserve the attention of enterprising merchants. The author says:

"The region known generally as the Cape Lopez country includes all the shores of the bay, and the interior for thirty or forty miles. It has much fine land, and King PANGO, if he were not a drunken vagabond, might be a prosperous king. Back from the seashore the land becomes higher and hilly, the mangroves give place to forests of palm and more useful woods, and fine prairies dot the country quite thickly. The whole of this district is given to the slave trade. It produces small quantities of ivory, ebony, wax, &c.; but the slave factory is the chief commercial establishment, and the buying, selling and transporting of slaves for the barracoons at the Cape is the most profitable business."

At Cape Lopez are found two slave factories or dépôts, one of which is kept by the Portuguese. The author narrates that upon one occasion when he was present, two young women and a boy of fourteen years were brought in for sale, and were bought by the Portuguese. The price paid for the boy was a twenty gallon cask of rum, a few fathoms of cloth and a quantity of beads. The women sold at a higher rate. Each was valued at the following goods, which were promptly paid over: one gun, one Neptune, (a flat disk of copper,) thirty fathoms of cloth, two iron bars, two cutlasses, two looking-glasses, two files, two plates, two bolts, a keg of powder, a few beads and a small lot of tobacco.

Soon after a slave schooner of 170 tons hove in sight and approached the landing, when six hundred slaves were taken off to her. (P. 180.)

The author concludes that a more general intercourse between foreigners and the coast tribes would be beneficial.

"A greater development of regular civilized trade would be a great boon to these people. Many articles, such as guns, powder, tobacco, brass and iron in various shapes, &c., have become necessities to the tribes who are within reach of white trade; but they are never obtainable in

nearly sufficient quantities, and consequently are held very precious. Now the high prices are a great temptation to the cupidity of the African, who having, by custom, rights of property in his children, often does not hesitate to sell these when other produce is lacking. He finds that one of his children is not bright, that it has no sense, or that it wants to bewitch the father. Then a consultation ensues with the relatives of the mother; they are promised a share in the produce of the sale—for they have rights also in the child—and, when they are brought to consent, the unhappy child is sold off.

“With the increase of legitimate trade such temptations will be done away with. At the same time, I am convinced that the introduction of agricultural industry, the planting of cotton and sugar for export, when these ends are accomplished, will only serve to rivet the bonds of the slave by so much as they will increase his value to the master. Now, the slave only adds to his master's ease and consequence; then, he will appeal to his cupidity. Show him that he can make a profit on his labor, and he will never consent to set him free.”

Near each village, particularly near the boundaries of the forest, are large plantations carried on with industrial labor, where tobacco, peanuts, plantains, yams and sugar cane are grown in large quantities. Cotton is found growing, but not in abundance. (P. 461.)

Narcotic plants are used to excess, as is the case in Asia, Europe and other portions of Africa, as well as in America. Of the lamentable results of this poison upon the human system M. CHAILLU makes the following remarks; sufficient, we think, to deter our own people from indulging in the noxious weed:

“One day during my journey I found a village in great excitement. One of the men had been smoking liamba leaves, and had run out to the forest in an insane state, and it was feared that he would be eaten by wild beasts. Such cases are not uncommon in the Ashira country. Under my own observation, afterwards, one liamba-smoker became furiously and permanently insane, and I saw many who were miserably debilitated by the habit.

“Hasheesh and the *Cannabis Indica* are so well known that it is not necessary to say any thing about them here. The plant is a native of Abyssinia, and Persia, and Hindostan, and is not, in my opinion, indigenous to this part of Africa. This I think, because I nowhere heard of its growing wild, and because the Ashira and Assingi, the only people I met who used it, cultivate it with considerable care. How it came hither, or how they first came by a knowledge of its qualities, I could not learn. There are among the Ashira many confirmed liamba-smokers, and the habit seems very quickly to fix itself with a fatal tenacity. Beginners I have seen fall down in convulsions from the first few puffs. Practiced smokers are seen laughing, talking, quarrelling, and acting in all respects like a drunken person. Insanity is its ultimate effect on those who persist in its use. I have several times seen men run into the forest under the influence of a few whiffs of liamba, perfectly unconscious and raving. The negroes acknowledge its pernicious effects, but yet its votaries increase, and though the plant is yet unknown to the seashore tribes, they will soon fall under its subjugation, for it is making gradual but sure advances. I never saw the leaf on the seashore, but once saw a few of the seeds in the possession of a slave in a slave factory. He was care-

fully preserving them, intending to plant them in the country to which he should be sold."

There are no doubt thousands of enterprising American merchants who are prepared to enlarge their sphere of trade in African products. The work of M. CHAILLU will furnish them much information on this subject.

TAPESTRY—ITS ORIGIN AND HISTORY.

*By CHARLES TOMLINSON, ESQ., Lecturer on Natural Science, King's College School, London.
Author of the "Cyclopædia of the Useful Arts."*

TAPESTRY, derived from the French, *tapis*, a carpet or table-cover, (which comes from the Latin, *tapetum*, a carpet or covering for a bed or couch,) is a name given to woven or embroidered fabrics, employed chiefly as lining or hangings on the walls of rooms or churches, and occasionally as ornamental coverings for articles of furniture, such as tables, couches, desks, &c.

Tapestry appears to be of oriental origin. Its materials were silk and wool, dyed in brilliant colors; also flax, byssus, gold and precious stones. Figures, landscapes and various ornamental devices were embroidered in the ancient tapestries, many of them apparently by hand. The embroidered curtains of the tabernacle, described in the book of Exodus, are supposed to have been worked with the needle in thread of silk, gold or wool. Embroidery and other ornamental works were extensively practiced among the Egyptians, and their figured cloths were made both by the needle and the loom. Respecting the latter, we are told that many patterns worked in colors by the loom were so richly composed that they vied with cloths embroidered by the needle. The Babylonians and other nations of antiquity were acquainted with this art, and made use of it to represent the mysteries of their religion, and also celebrate historical events. The Greeks attributed the invention to MINERVA. Shawls or hangings for the temples formed an important part of the gifts offered by devotees to heathen divinities. On these hangings the utmost care and skill were bestowed, and they were even celebrated by the poets. Thus, EURIPIDES describes a shawl on which the sun, moon and stars were represented, and which, with others containing hunting-pieces, &c., belonging to the temple of APOLLO, at Delphi, were used to form a magnificent tent. In what way the precious metals, jewels, &c., were introduced into ancient tapestry, we are not clearly informed. In the 39th chapter of Exodus there are directions for beating gold into thin plates, and then cutting it into wires for the cunning work of the ephod; and it is thought probable that the gold thread used in Egyptian embroidery was made in the same manner, and rounded by the hammer, for no trace of wire-drawing has been discovered in the ancient accounts of working in metal.

The working of tapestry with the needle can be traced, in France, to the earliest times of the monarchy. When CLOVIS and his people em-

braced Christianity, not only were the churches adorned with rich tapestries, but the very streets were curtained with them. At that time, and down to the ninth century, they appear to have been fabricated entirely by hand; but at about the latter date the loom was introduced, and shared in the manufacture, which, however, was still largely carried on by the needle, and formed the employment of females in convents and elsewhere. In the two following centuries other parts of Europe produced fine embroideries; and those of England gradually became highly prized on the Continent.

A great extension of the employment of tapestry took place in the twelfth and thirteenth centuries, when it began to be applied to private use in the residences of the nobility, instead of being reserved, as heretofore, for the curtains, palls, altar-cloths and vestments of churches and monasteries. The lofty walls of stone were no longer allowed to remain cold and naked, but were covered, often by the industry of the ladies of the family, with rich hangings, on which the heroic deeds of their ancestors were embroidered with more or less dexterity, according to the skill of the draughtsmen in design and of the needlewomen in execution. The taste for these household luxuries is said to have been introduced from the East, in consequence of the increased intercourse occasioned by the Crusades. The oriental practice of covering walls with prepared and ornamented skins, united so as to form solid leather hangings, which not only resisted damp, but were capable of high ornamentation by means of gilding, seems to have suggested the use of tapestry for similar purposes, and thus to have led to a vast improvement in the domestic comfort of many a baronial dwelling. These solid and richly embroidered curtains must have saved the inmates from many cold currents of air, while their legends imparted an unwonted appearance of life and activity to the bare walls. The eastern origin of these wall-coverings may be traced in the name *SARAYINS* or *SARAYINOIS*, formerly applied in France to the workmen engaged in their manufacture. In the fourteenth and fifteenth centuries the *FLEMINGS*, who had long been celebrated for their tapestries, carried the art to great perfection, and produced some of the finest specimens which had yet appeared. *GUICCIARDINI* ascribed the invention of tapestry to Flanders; but this could only apply, if at all, to such as is produced by the loom, and embroidery by the loom appears only to have followed when the fingers became inadequate to meet the demand for a well-known and necessary article. Among the early manufactures of tapestry were those of Brussels, Arras, Antwerp, Lisle, Oudenarde, Tournay, Bruges and Valenciennes. Those of Arras became highly celebrated; they were executed, as were most of the French tapestries, chiefly in wool, with a little hemp and cotton, but without silk or gold or silver thread. The richer and more costly kinds of tapestry were fabricated chiefly at Florence and Venice. In the sixteenth century *FRANCIS I.* established the celebrated manufacture of Fontainebleau, in which threads of gold and silver were introduced into the work. This manufacture was also patronized by his successor, *HENRY II.*, who brought Italian workers to further French art. In the following century new edifices were erected for the tapestry weavers of Paris, and Flemish workmen were hired to assist them. But the work languished after the death of *HENRY IV.* It was revived by *LOUIS XIV.*, who founded a manufacture in premises which had been erected by celebrated

dyers, named *GOBELIN*. The establishment was named *Hotel Royal des GOBELINS*, and has attained a world-wide celebrity on account of the fine tapestries executed there, often from designs of *RAPHAEL*, *GULIO ROMANO* and other Italian painters. *LE BRUN* was at one time chief director of the establishment, and many fine productions are from his designs. This manufacture continued to flourish until the time of the Revolution, when it greatly declined. It was subsequently revived under the government of *NAPOLEON*, but never regained its ancient fame. The works executed in it were thenceforth chiefly for the use of the royal palaces, and very few were presented for general sale. Our great exhibition of 1851 presented two fine specimens from this celebrated manufactory. Both were copies of well-known pictures, the one, of *RAPHAEL*'s fresco in the *Farnesian*, in which *PSYCHE* is represented carried through the air by genii, and bearing the vessel which, at the behest of *VENUS*, she has brought from the nether world; the other, of *HORACE VERNET*'s picture of *ALI PASHA* looking on at the massacre of the Mamelukes, who, at his command, were shot by his soldiers. In both these copies the general effect, as well as much of the feeling of the artists, were preserved to an extraordinary degree, considering that the process of copying was so purely mechanical.

Of the use of tapestry in England we have many brief indications in Anglo-Saxon times. Silken curtains, embroidered in gold, were fabricated for some of the dwellings of the nobility; and, in the wonderful specimen of industry known as the *Bayeux tapestry*, we have an evidence of the use of linen tapestry, worked with wool, in the days of *WILLIAM the Conqueror*. This piece of needle-work is said to have been executed by his queen and her maidens, in commemoration of the conquest of England, and to have been bestowed by *MATILDA* herself on the cathedral of *Bayeux*, of which *Odo*, the Conqueror's brother, was bishop. At one time this piece of tapestry was annually hung up in the church, where it entirely surrounded the naves, and was so kept for eight days, when it was again carefully locked up. By order of *NAPOLEON I.* the *Bayeux tapestry* was exhibited in Paris in 1803, and in other large towns of France; it was then consigned, not to the cathedral, but to the municipality of *Bayeux*. It is twenty inches wide and two hundred and fourteen feet long, and is divided into seventy-two compartments, each bearing a superscription in Latin.

Tapestry hangings were introduced more generally in the time of *ELEANOR of Castile*, and began to be employed, also, as a covering for floors. The rich tapestry of *ELIZABETH*'s time is noticed by poets and writers of the day, and indicates an abundance which could not have been supplied by the needle. And it appears that tapestry weaving had been introduced into England in the reign of *HENRY VIII.*, and was practiced from that time with more or less success. A celebrated manufactory at *Mortlake*, in *Surrey*, produced superb hangings for the royal palaces, &c. These were hung up on frames by means of hooks, and often at some little distance from the walls, so that concealment behind the tapestry was quite possible. This arrangement facilitated the removal of one suit of tapestry and the substitution of another to suit particular occasions, such as a royal progress, when the tapestry was sometimes sent on and affixed to the walls for that special occasion. At a later period, tapestry shared in the improvements of weaving and dyeing, but became

less characteristic and interesting as its peculiar use in recording family or historical events passed away.

Tapestry work is distinguished by the workmen into two kinds, that of high and that of low warp; (*haute-lisse* and *basse-lisse*;) though the difference is rather in the manner of working than in the work itself, which is in effect the same in both; only the looms, and consequently the warps, are differently situated; those of the low warp being placed flat and parallel to the horizon, with the weaver in a sitting position, and those of the high warp erected perpendicularly, so that the weaver is in a standing position. The loom on which the high warp is wrought consists of four principal pieces, two long planks or cheeks of wood, and two thick rollers or beams. The planks are set upright, and the beams across them, one at the top and the other at the bottom, or about a foot distance from the ground. They have each their trunnions, by which they are suspended on the planks, and are turned with bars. In each roller is a groove from one end to the other, capable of containing a long round piece of wood fastened in it with hooks. The use of it is to fix the ends of the warp. The warp, which is a kind of worsted or twisted woollen thread, is wound on the upper roller, and the work, as fast as woven, is wound on the lower. In the inside the planks, which are 7 or 8 feet high, 14 or 15 inches broad and 3 or 4 thick, are holes pierced from top to bottom, in which are put thick pieces of iron, with hooks at one end serving to sustain the coat-stave. These pieces of iron have also holes pierced, by putting a pin in which the stave can be drawn nearer or set further off; and thus the coats or threads are stretched or loosened at pleasure. The coat-stave is about three inches in diameter, and runs all the length of the loom. On this are fixed the coats or threads, which make the threads of the warp cross each other. It has much the same effect here as the spring-stave and treadles have in the common looms. The coats are little threads fastened to each thread of the warp with a kind of sliding knot, which forms a sort of mesh or ring. They serve to keep the warp open for the passage of broaches wound with silk, wools or other matters used in the piece of tapestry. In the last place, there is a number of small sticks of different lengths, but all about an inch in diameter, which the workman keeps by him in baskets, to serve to make the threads of the warp cross each other by passing them across; and, that the threads thus crossed may retain their proper situation, a packthread is run among the threads above the stick. The loom being thus formed, and mounted with its warp, the first thing the workman does is to draw on the threads of this warp the principal lines and strokes of the design to be represented on the piece of tapestry, which is done by applying the cartoon or design to be copied to the back or wrong side of the warp, and drawing the pattern on the front of the warp, the threads of which are sufficiently open to allow the artist to see the design between them. The original design by which the work is to be finished is hung up behind the workmen, and wound on a long staff, from which a piece is unrolled, from time to time, as the work proceeds.

Besides the loom, &c., here described, there are three other principal instruments required for working the silk or the wool of the woof within the threads of the warp; these are a broach, a reed and an iron needle. The broach is made of a hard wood, seven or eight inches long and two-

thirds of an inch thick, ending in a point with a small handle. This serves as a shuttle—the silks, woollens, gold or silver to be used in the work being wound on it. The reed or comb is also of wood, eight or nine inches long, and an inch thick on the back, thinning off to the extremity of the teeth, which are more or less apart, according to the greater or less degree of fineness of the intended work. Lastly, the needle is made in the form of the common needle, only larger and longer. Its use is to press close the wool and silks when there is any line or color that does not fit well.

All things being prepared for the work, and the workman ready to begin, he places himself on the wrong side of the piece, with his back towards the design, so that he works, as it were, blindfold; seeing nothing of what he does, and being obliged to quit his post and go to the other side of the loom whenever he would view and examine the piece, to correct it with his pressing-needle. To put silk, &c., in the warp, he first turns and looks at the design, then taking a broach full of the proper color he places it among the threads of the warp, which he brings across each other with his fingers by means of the coats or threads fastened to the staff; this he repeats every time he has to change his color. Having placed the silk or wool, he beats it with his reed or comb, and when he has thus wrought in several rows over each other, he passes around to see what effect they have, in order to reform the contours with his needle if there be occasion. As the work advances, it is rolled upon the lower beam, and as much warp is unrolled from the upper beam as suffices. When the pieces are wide several workmen may be employed at once.

The loom or frame on which the low warp is wrought is much like that of the weavers. The principal parts are two strong pieces of wood, forming the sides of the loom, and bearing a beam or roller at each end. They are sustained at bottom with other strong pieces of wood in the manner of trestles; and, to keep them the firmer, they are likewise fastened to the floor with a kind of buttresses, which prevent any shaking, though there are sometimes four or five workmen leaning on the fore-beam at once. The rollers have each their trunnions, by which they are sustained; they are turned by large iron pins, three feet long. Along each beam runs a groove, in which is placed the *wich*, a piece of wood of about two inches diameter, and almost of the length of the roller; this piece fills the groove entirely, and is fastened from space to space by wooden pins. To the two *wiches* are fastened the two extremities of the warp, which is wound on the further roller, and the work, as it advances, on the nearer. Across the two sides, almost in the middle of the loom, passes a wooden bar, which sustains small pieces of wood, not unlike the beam of a balance. To these pieces are fastened strings, which bear certain spring-staves, with which the workman, by means of two treadles under the loom, on which he sets his feet, gives a motion to the coats, and makes the threads of the warp rise and fall alternately. Each loom has more or fewer of these spring-staves, and each staff more or fewer coats, as the tapestry consists of more or fewer threads.

The design or painting which the workman is to follow is placed underneath the warp, where it is sustained from space to space with strings, by means of which the design is brought nearer the warp. The loom being mounted, there are two instruments used in working it, the reed

and the flute. The flute does the office of the weaver's shuttle; it is made of a hard polished wood, three or four lines thick at the ends, and somewhat more in the middle, and three or four inches long. On it are wound the silks or other materials to be used as the woof of the tapestry. The comb or reed is of wood or ivory; it has usually teeth on both sides; it is about an inch thick in the middle, but diminishes each way to the extremity of the teeth; it serves to beat the threads of the woof close to each other, as fast as the workman has passed and placed them with his flute among the threads of the warp. The workman is seated on a bench before the loom, with his breast against the beam, only a cushion or pillow between them; and in this posture, separating with his fingers the threads of the warp, that he may see the design underneath, and taking a flute, mounted with a proper color, he passes it among the threads, after having raised or lowered them, by means of the treadles moving the spring-staves and coats. Lastly, to press and close the threads of the silk or yarn, &c., thus placed, he strikes each course (*i. e.*, what the flute leaves in its passing and coming back again) with the reed.

The usual widths of tapestry were formerly from two ells to three ells Paris measure; and it was the business of the *ventrayeurs*, or fine-drawers, to unite the tapestry into one picture, without any appearance of seam. Of late years, however, the pieces are woven of such a width that joining is seldom required, even for the largest pieces.

THE COTTON QUESTION.

I. COTTON IN GEORGIA. II. REPORT OF THE COTTON SUPPLY ASSOCIATION. III. COTTON GROWING IN JAMAICA. IV. SUPPLY OF COTTON AND PAPER MATERIAL. V. COTTON IN QUEENSLAND. VI. COTTON IN ENGLAND.

COTTON IN GEORGIA.

Most of the Southern papers advise the planters to store their crops on the plantations and not send them to market. The *Augusta Chronicle* says:

"Why send cotton to either the interior towns or the ports? It is said that it should be ready to take its earliest chance for a market. But this is the advice of speculators and others interested in the carriage, storage and sale of cotton, and not to benefit the producer. Suppose only 150,000 bales stored in Augusta, and the blockade raised next January; it would require eight millions of dollars to move it, and as the means at hand would not be sufficient, of course the buyers would be the veriest bears, and the price go down, down, with such a supply urgently seeking market, and all to the planter's loss.

"The farmer and planter can store his cotton at a much less cost than any one can store it for him; and in fact without paying out money at all for it, and it is certainly best for him to do so, when the time of sale is so uncertain and indefinite. And as to insurance, it comes out of the producer any way, and he can have it insured at home just as well as if it were in a warehouse in town, and perhaps at less cost. He may want

advances on his crop, perhaps, but if he can get them at all, he can get them just as well while his cotton is in his gin-house and sheds. We know that in lower Georgia and the west—not so much in this region—advances are made on cotton even before it is planted.”

THE COTTON SUPPLY ASSOCIATION.

The annual meeting of this association was held on the 11th June, in the Manchester town hall. The attendance was numerous and influential.

Mr. J. CHEETHAM, the president, said the present state of circumstances affecting the supply of cotton to this country, alarming as it was, did not make the arguments of this association any stronger than they were at its foundation, four years ago, though its principles might be more fully recognised now than they were at that time, by the many who then stood aloof. The leading principle of the association had been, from the outset, that this vast national interest of cotton manufacture ought not to remain in almost total dependence on one source of supply for its raw material, especially when the permanence of that source was so closely bound up with a social system liable suddenly to break down and leave us in the direst emergency. He regretted very much the indifference with which the question had been regarded among the manufacturing interest itself, as compared with the anxious attention paid to it in all circles in the metropolis. Everywhere in London the question was being asked of them, “What are you doing in Lancashire, and what is to be the result there of this crisis in the United States?” Now that the crisis seemed imminent, it was a matter for congratulation that this association had already been in existence four years, storing up information and experience that might serve to guard us from ill-considered and disastrous experiments. It was easy to report of this or that part of the world, that it was capable of supplying abundance of excellent cotton; but the point too often lost sight of was the enormous advantages possessed by the American planter. In the first place he had the pre-eminent advantage of being an Anglo-Saxon, endowed with all the skill, enterprise and ingenuity of that race. Then he had a country, the soil and climate of which were peculiarly adapted for the culture of the article, from the lowest qualities up to the very finest. He had an adequate and intelligent acquaintance with the real wants of the consumers; his own country was covered with roads, railways and navigation, so as to give him the greatest possible economy in conveying his produce to the port, and there also he met the capitalists, who gave him the means of speedy communication with all the markets of the world. What, then, were the places on the globe where we were able to contend with a competitor so highly favored?

On a review of those parts of the world whence cotton might be expected to come, it was found that, apart from the southern portion of the United States, there were only two regions possessing the very first requisite, which was labor, to employ; and those two were the West of Africa and the East Indies. Every other country possessing soil and climate fit for the growth of cotton of a quality equal and in many cases superior to that which America produced, was yet placed out of the question at present by the want of labor. And in the West of Africa, though there was labor, the people were savage, the country was desolated by the warfare of hostile tribes, and the climate, also, was fatal to

Europeans. Thus we were at present restricted to that great continent of India, which was now actually growing more cotton than any other portion of the globe. It was calculated that the annual produce of cotton in India was not less than 6,000,000 bales. We also possessed the advantage of having that country under our own government. There, also, we had abundance of free labor; there was no question of slavery to grapple with. And yet there were formidable obstacles, as compared with the position of the Americans. In the cotton districts of India there was no such man known as the Anglo-Saxon. The cultivation was in the hands of the ryot, a small farmer holding a few acres of ground, and so poor himself as to depend on bankers for his capital. When his crop reached maturity the produce was taken by the money-lender, who, of course, had great control over the price, and it very little exceeded 1½d. or 1¼d. per lb. The cotton was imperfectly cleaned, and underwent various adulterations for the advantage of the succession of dealers through whose hands it passed before it reached the English merchant at the place of export. It was worthy of remembrance, that scarcely any article exported from India had ever been brought to a satisfactory state of production, unless under European superintendence. But in India we were also without roads to the seaboard, without water communication, also, and railways were only now on the point of becoming available. Another difficulty was the understood principle of the Indian government that no land should ever be sold in fee simple to Europeans; and then there was the jealousy of the civil service against enterprising Englishmen in the interior of India, who were to this day regarded as interlopers, though an altered tone was beginning to be manifest on the part of the government. Under these circumstances, it was not surprising that Indian cotton was the worst grown in the whole world, and fetched the lowest price, so that consumers were accustomed to smile at all proposals for relying on India as a main source of supply. The movers of this association believed, nevertheless, that there was a prospect not only of increasing the Indian supply to this country, but also of elevating the quality to a level with that grown in America. The quantity received from India in the last six years was 2,974,000 bales, of which we had ourselves consumed only 266,000 bales per annum on the average, the annual excess of 230,000 being taken away to various countries on the continent. India was capable of giving us a much larger quantity than 900,000 bales, which was the amount last year. Probably we could reckon on 1,200,000 bales a year from Bombay. This association had lately been enabled to hand over the development of the cultivation of a superior quality of cotton in India to the efforts of a joint-stock company, whose chairman was his friend, JOHN PLATT, of Oldham. As soon as the season permitted, the company proposed to send out to India, as its commissioner, Mr. G. R. HAYWOOD, who had hitherto been the secretary of this association; and Sir CHARLES WOOD had placed at that gentleman's disposal the services of Dr. FORBES, who would accompany him. Mr. CHEETHAM referred again to the danger of relying exclusively on America, and pointed to the fact, that while the annual supply from the whole world, in the last ten years, had averaged only 3,984,000 bales, the annual consumption of Great Britain, Europe and America had been 3,960,000. The present price of cotton arose not so much from the actual crisis in America as from the practical knowledge that a million bales had been lost to us by the failure of the harvest.

Mr. H. ASHWORTH moved the adoption of the annual report of the association, which was agreed to; and the meeting was addressed also by Dr. BEKE, a traveller in Abyssinia, as to the capabilities of that country; by Mr. H. JORDAN, the government commissioner from Queensland; by the Rev. Mr. ARTHUR, who claimed pre-eminence for India as the source chiefly to be relied on for a speedy supply of cotton; by the Rev. Mr. TOWNSEND, from the West Coast of Africa; by the Rev. Mr. STUART, who is about to join the expedition of Dr. LIVINGSTONE; and by Mr. HEPPEL, the engineer of the Madras Railway.

COTTON GROWING IN JAMAICA.

A commercial letter from Kingston, Jamaica, dated 6th June, shows that the course of events in the United States has affected trade in that island, which is greatly dependent on the northern States for its supplies of food. On another topic, viz., the cultivation of cotton, considerable interest has been developed. The writer says:

"The good to result to Jamaica lies chiefly in the question of cotton cultivation. The British, really trembling for the stoppage of supplies in the raw material, are roaming the world round to discover some new sources of supply. Now, as this island possesses as great facilities for the cultivation of cotton as perhaps any country on the face of the globe, it is not surprising that there should be a share of British capital at this critical moment—critical to the Manchester men, for it looks as if cotton no longer is king—invested in our soil. A company has been formed in England for the purpose of immediately cultivating 60,000 acres in cotton in this island. A lively interest is also being awakened to the subject in the minds of colonists, a great many of whom are thinking seriously of turning their attention to the cultivation of the great staple. I have no doubt, myself, that Jamaica is destined to be one of the future sources of supply of the raw material to the manufacturers of Great Britain."

SUPPLY OF COTTON AND PAPER MATERIAL.

A correspondent of the London *Daily News* says: As cotton is the all-engrossing topic of the day, and, as events are likely to prove, the all-important one, will you allow me to call your attention to another place in the British possessions where cotton and paper material are obtainable? South Africa, which is now known to be a fibrous region, produces an indigenous plant, belonging to the *armyllidea* family, which possesses a mass of the finest fiber, and which, when dressed, could be used for spinning and weaving purposes, and the residue worked into halfstuff and shipped to this country as a substitute for rags, (duty free,) and used as material for paper-making. There is a large quantity of this now obtainable, but it is so prolific and capable of propagation that, by cultivation and due attention, millions of tons could be produced, as I find by calculation that if the yield was only one ton per acre, a piece of land, say 500 miles square, would produce the almost incredible quantity of one hundred and sixty million tons, at the same time capable of producing five times the quantity per annum. Royal letters patent, under the great seal, were

granted in 1847 for the application of this production for textile and paper purposes, but owing to the then abundant supply of cotton from America, and the demise of Mr. CROMPTON, the eminent paper-maker, little has been done practically in the matter, though samples of the cotton have been exhibited in the Exchange of Manchester, and live samples of the plant introduced to most of our national institutions. Sir WILLIAM HOOKER, Professors QUEKETT and BENTLEY, and other eminent scientific judges, eulogize highly the qualities of the fiber, Professor QUEKETT using the following striking language: "I would particularly call your attention to the cotton bulb, the silky filaments of which are no doubt capable of being converted into the most delicate fabrics." With the aid of Kaffir and other native labor, and the improved agricultural implements science has given to the world, there is little doubt but that South Africa could supply as much of this cotton and paper material as Great Britain could consume.

COTTON GROWING IN QUEENSLAND.

Mr. M'MILLAN, having completed his purchase of a cotton farm on the Calliope River, had departed to take possession and commence active operations. He has taken with him a number of cocoanuts, to plant on the shores of Port Curtis. Mr. M'MILLAN arrived from Victoria to commence cotton-growing in this colony. He intends to begin operations at once, employing, if possible, native aboriginal labor. In this kind of labor, however, he says he has not much confidence, and hopes soon to have a draught of coolies on his land. He has to direct his attention chiefly to Sea Island cotton, and "trusts before twelve months are passed to become a public creditor to the amount of several sums of £10 each, for bales of good marketable cotton fit for the English manufacturers." Mr. M'MILLAN has evidently the most abundant confidence in them, and with good reason no doubt. He rates the population of Brisbane soundly for their sloth and apathy, but for which he says they might have developed a large cotton-growing interest years ago. Mr. M'MILLAN goes in strongly for coolie immigration, without which he seems to think there will be little cotton or any other cultivation in Queensland.—*Australian and New-Zealand Gazette*.

COTTON IN ENGLAND.

From the investigations of the Cotton Supply Association of the Manchester Chamber of Commerce, and of individual persons well competent to form an opinion upon the subject, it appears that in the British colonies there are larger spaces of territory, more eligible climates, a greater amount of cheap labor for the production of the raw material of the chief manufacture of the mother country, than there are in any other portions of the earth. India or Australia, it is said, could, under conditions, alone supply our markets; large quantities of cotton could be obtained from our stations in Southern Africa, and the western coast of that continent could quickly rival the United States in the cotton export trade. * * * * *

The political complications of the United States may, however, produce

the most disastrous results in 1862. We have already enumerated the vast resources for cotton supply which are even now at our command.

There is yet time to render them more productive, and we have had fair warning. We do not care again to refer to the consequences to be dreaded from a real dearth of cotton in our markets. One good consequence is to be anticipated from the present alarm; it will destroy for ever the monopoly of the United States, and will convert our manufacturers to the judicious policy of free competition among many markets.—*Westminster Review*.

SHIP TIMBER AND ITS VARIETIES.

By ROBERT MURRAY, *Engineer Surveyor to the British Board of Trade.*

I. ACACIA. II. ALDER. III. BIRCH. IV. BOX. V. CEDAR. VI. CHESTNUT. VII. CYPRESS. VIII. HORNBEAM. IX. LIGNUM VITÆ. X. MAPLE. XI. MAHOGANY. XII. POPLAR. XIII. STAMORE. XIV. WALNUT.

WE propose to describe a few species of timber trees, of minor importance to the builder, but still useful for many purposes of construction.

Acacia is of small dimensions, seldom exceeding two feet in diameter, but when used in house-carpentry is very durable. It is harder, tougher and more elastic than the best oak. It is a valuable timber for tree-nails for ship-building; also, for posts and rails for fences, in which capacity it is very enduring.

Alder.—The wood of this tree lasts a long time under water, which renders it valuable for piles, water-pipes, &c. It has a close texture, a fine color, and works well under the plane, which makes it a favorite with the cabinet-maker. The best charcoal for gunpowder is made from this wood. When burned in the open air, 1,000 lbs. of the ashes yield 65 lbs. of potash.

Birch.—This wood is hard but not very durable. It is chiefly used for making cheap furniture and for firewood.

Box is a valuable wood, being very close-grained, hard and heavy, and cuts very clean under the chisel or graving-tool, being, therefore, used almost exclusively by the wood-engraver. Being susceptible of a fine polish, it is much used by the turner, mathematical instrument maker, &c. It is also very durable.

Cedar (*Cedrus pinus*) grows to a great size; the timber is resinous, of a reddish-white color, light and spongy in its texture, easily worked, but apt to shrink and warp if great attention be not paid to the seasoning. It was much valued by the ancients for its durability and preservative properties. The wood is odoriferous, and admirably adapted for joiner-work, being light and easily worked. Although a resinous wood, it contains but a small quantity of that substance. It resists the attack of insects.

Cedar, Indian, (*Cedrus deodara*), is also a very large tree. The wood is very compact, highly impregnated with resin, and possessed of a hard and fine grain. Its durability, when exposed to the weather, is very great; some bridges constructed of it in India have lasted for five hundred years. It is much used by the Hindoos in their buildings.

Chestnut (*Castanea*) has been already mentioned as a very excellent timber for building purposes. The horse-chestnut, on the other hand, is a soft, inferior wood, of but little strength or durability. It resists moisture, however, and may be advantageously used for water-pipes under ground.

Cypress is a fine-grained wood, remarkable for its great durability and its freedom from injury by worms or insects. Owing to this property it was employed in Egypt for mummy-cases.

Hornbeam is a hard, heavy, tenacious wood, very close grained. It is much used for cogs of wheels and other engineering purposes, where the material is exposed to friction.

Lignum Vitæ is a very hard, dense wood, much used by millwrights and turners; its chief use, however, is for the sheaves of blocks. It is also employed by the engineer for lining the sockets of shafts, which are found to revolve in it with little friction and wear.

Lime, though a highly ornamental tree, and growing to a great size, is not of much value for its timber, which is soft and light, and deficient in strength and durability. Being close grained and smooth in its texture, however, it is well adapted for carving and cabinet-work.

Maple is a clean, white wood, prized for its lightness, and is used by the turner for making dishes, bowls and trenchers, and by the joiner for common furniture. As it is not liable to warp or split, it is readily stained to imitate mahogany and other woods.

Plane.—The wood of this tree much resembles the beach. It is used by the joiner and cabinet-maker, but is not remarkable for strength or endurance. It keeps best under water, and is used in America for quays and other marine works.

Poplar.—The wood of this tree (of which several kinds are grown in this country) is much used by builders for floors, especially as it does not easily split by driving nails into it, and it has the property of not readily catching fire. When used for this purpose, however, it requires from two to three years seasoning, as it shrinks much in drying.

Sycamore, when kept dry, is durable, but is readily attacked by the worm. It is a species of maple, and is possessed of similar qualities.

Walnut is one of the most valuable of English timbers. The wood is solid and compact, easy to work, not liable to crack or warp, and handsome in appearance; it is, therefore, much used for the better class of furniture. The screws of presses and gun stocks are generally made of it. The black Virginia walnut is the most prized. It prefers hilly, calcareous soils.

Willow is a soft, smooth, light wood, of little value; but, if kept dry, it will last a long time in situations where much strength is not required.

Yew was principally used of old for the making of bows, and is now a favorite wood with turners, from the smoothness and toughness of its grain, and from its taking a high polish. It sometimes attains an extraordinary bulk. At Gresford, near Wrexham, there is a yew 29 feet in circumference at a little distance below the branches; and in Diben churchyard, New-Forest, there is a yew tree measuring 30 feet in girth at the ground, while others, of large size, occur at Iffley, Hampton Court, Dorly-in-the-Dale, Tisbury and other places. When found growing in churchyards, they may be generally reckoned as coeval with the church itself.

The weight or density of a timber is, in general, a sure index to its strength, the densest wood being at the same time the strongest and the most durable. The oak, as well as all other timbers, varies in its specific gravity, according to the soil which produces it, the density mainly depending upon the length of time occupied in the formation of the wood. Those trees which grow fast, from being located on moist, sandy soils, never produce such strong timber as others of slower growth. It has been found by experiment, that the bottom part of the trunk, with the corresponding branches, is denser and stronger than the upper part of the same tree. Those trees, which are suffered to complete their full term of growth before being cut down, have their heart-wood throughout of the same weight and strength, taking a cross section of the trunk at any one place, whilst those that are felled prematurely are found to possess these qualifications in the central portion of the wood only, which is then considerably harder than that immediately surrounding the sap-wood. In trees which have been overgrown, on the other hand, the central portion of the wood is the weakest, the process of natural decay always commencing in the heart of the tree. It is a common thing to see the heart of some fine tree (blown over by the wind, perhaps,) which, to an untrained eye, looks perfectly sound and flourishing, to be already disintegrated by the spreading filaments of the dry rot, which have attacked it so soon as its vigor began to flag. The age at which oak timber is at its prime is generally supposed to be from eighty to a hundred years, although this depends, as we have before explained, upon the nature of the soil on which it is grown. The weight of good oak timber is about 60 lbs. in the green state; and, when seasoned, about 50 lbs. If the seasoning is carried beyond this by artificial desiccation, the strength of the timber is impaired.

The decay of wood by the growth of fungus, denominated dry-rot, may be traced to the putrifying of the sap, when this has been left within the pores of the timber in the same condition as it exists in the living tree. The various means which are employed to arrest this destructive fermentation are, either to wash out the sap by long soaking in water aided by the action of the sun; to dry up the sap, either naturally by exposure to the sun and wind, or artificially by baking, or by heated currents of air; or else by injecting into the pores of the wood some metallic salt, to combine with the albumen and render it insoluble, or some antiseptic substance to preserve the vegetable tissue. The processes of natural seasoning and artificial desiccation, being those most in use for the preservation of ship-timber, will be found amply described in the article Ship-Building; also, the best mode of creosoting, although the latter process, from the increased inflammability and the strong smell it imparts to timber, is scarcely applicable to the building either of ships or houses. For the preservation of railway-sleepers and other wood-work out of doors, which is not particularly liable to danger from fire, the creosoting process has been proved to be most valuable. Its efficiency depends, in a great measure, upon the mode of operation, and the quantity of creosote injected into the timber, which should be done under pressure in a closed cylinder. The process is most applicable to fir and other soft woods, which should imbibe at least seven pounds of the creosote oil per cubic foot; oak imbibing not more than two or three pounds, even under a pressure of 120 pounds per square inch. This substance

seems to act, firstly, by coagulating the albumen; secondly, by furnishing a water-proof covering to the fiber of the wood; and, thirdly, by preventing the putrefaction of the sap by its antiseptic properties.

The various processes for the preservation of timber, by the absorption of metallic salts, have all more or less failed in practice, and are now very generally abandoned. These are known by the names of the inventors, as RYAN'S, MARGARY'S, BURNETT'S and PAYNE'S processes. The object sought by each of the three first of these methods was to coagulate the albumen in the capillary tubes of the timber and thus prevent or retard the putrefaction of the sap. RYAN used chloride of mercury for this purpose, dissolving, at first, one pound of the salt in four gallons of water; but as it was found that the wood absorbed about six or seven pounds of this costly salt per load, more water was added to lessen the expense, until the solution became so weak as, in a great measure, to lose its effect. This process has, therefore, been entirely abandoned. The salt employed by MARGARY was sulphate of copper, which, being much cheaper than chloride of mercury, could be used as a stronger solution. Its efficacy, however, has proved doubtful in many cases, while in not a few instances it has failed altogether. Better than either of the preceding is Sir WILLIAM BURNETT'S plan of injecting a solution of chloride of zinc, in the proportion of about one pound of the salt to four or five gallons of water. This process is still in use, and has certainly proved beneficial in a great many cases, but it cannot always be relied upon. PAYNE'S process consisted in the successive injection of two substances in solution; the first, a metallic or earthy solution, and the second, a decomposing fluid; the consequence being, that the capillary tubes of the timber became filled with an insoluble substance. The process of creosoting timber, already referred to, was first patented by Mr. BETHELL, in the year 1848. One great advantage of creosoted timber is, that it perfectly resists the attacks of marine worms and insects, as well as the white ant of India, which is more than can be said for timber prepared with solutions of metallic salts. Even that prepared with corrosive sublimate (as in RYAN'S patent) has no immunity in this respect, the albumen appearing to neutralize the poisonous property of the salt.

For ship-building purposes such chemically-prepared or "salted" timber is scarcely to be recommended, as it attracts much moisture and is very destructive to the metal fastenings. Empyreumatic oils and resinous solutions, although these certainly render the wood impervious to moisture, and preserve the iron or metal bolts from oxidation, are still very objectionable from the increased inflammability which they impart to the structure. The time necessarily required in preparing the wood with the preservative substance is also a great drawback to its employment in ship-building, where a delay of even two or three days, more especially in repairing, is often of serious consequence; and it should be remembered, the timber must be operated upon after it has been shaped or "converted." Timber may be very perfectly preserved from subsequent decay by long submergence in shallow salt-water, or, which is still better, in salt mud. When thus treated for a period of from ten to twenty years, the sap gets thoroughly washed out of the pores of the wood by the alternate absorption and expulsion of air or other gases caused by successive variations of temperature. It need scarcely be hinted, however, that such a mode of procedure, though sometimes

adopted in government dock-yards, would be ruinously expensive to the private ship-builder. Having pointed out the fatal objections generally attending the use of chemically-prepared timber for ships or houses, it remains to show what means can be employed (and that with tolerable certainty) for preserving the timber of these structures from premature decay. The means at our command for this purpose are summed up in the two words, "seasoning" and "ventilation;" namely, thorough seasoning or drying of the timber on shore, when this is practicable; but, by all means, good ventilation on board. If these well-known and universally approved principles were but carried out in an honest and common-sense fashion, we should hear but little of rotten gun-boats, or heavy repairs to frigates after a first commission. Though it is undoubtedly true that the closely packed timbers and double planking of a vessel of war present great obstacles to a thorough ventilation of the bottom, much may still be done by conducting currents of air down into the hold and between the timbers by means of wind-sails, or, if necessary, by fanners, worked either by steam or hand, and by so arranging the internal accommodation that there may be as little stagnation of air as possible. However well seasoned and dry the timber may be when the ship is launched, it will rapidly absorb moisture from the damp atmosphere of the hold, unless evaporation from its surface be kept up by a forced circulation of air.

It is certainly unbecoming the scientific character of the age that ships built hurriedly and cheaply, and of very inferior timber, by what are contemptuously called "slop" builders, are known to resist the ravages of dry-rot much better than the expensively and elaborately constructed ships of Her Majesty's dock-yards; nay, more, that these same "slop-built" ships, even when constructed entirely of green timber, (as they frequently are,) will last longer than a government ship built with the best seasoned oak.

The whole secret is, of course, the internal ventilation of the hold and frame of the ship. In a cheaply-built merchant-ship the timbers are spaced some distance apart, and the ceiling planks are not placed so close together as hermetically to seal the spaces between the timbers, the consequence being that good ventilation is maintained amongst the planks and timbers of the bottom and sides. Even when such a ship is built of green wood, the circulation of air is generally sufficient to season the timber in its place and prevent its decay, for the dry-rot fungus will not thrive in an atmosphere less moist and stagnant than that of an underground cellar. The shrinkage of green timber in such a case would also conduce to its preservation, by admitting the air between the ceiling planks.

These remarks are not intended to excuse the use of unseasoned timber in ship-building, a practice which should be resorted to only from dire necessity, but rather to show that if ships built of green timber can be preserved by what may be termed accidental ventilation, those built of seasoned timber should, *à fortiori*, be still more easily preserved by systematic ventilation. The action of heat in causing an upward current of air naturally suggests itself as a ready means of effecting this object on board ship. The dry-rot has been frequently arrested in a ship by thoroughly drying the timbers, holes having been previously cut in the ceiling planks to promote circulation. Yachts and other small vessels,

when not in use, may be preserved from dry-rot by hauling them out of the water in an exposed situation where the wind will get to them, keeping sky-lights and hatches open, and if a plank be removed from the bottom they are all the safer. Should they be entirely closed up, on the other hand, the dry-rot will flourish within like mushrooms in a hot-bed.

Sap-wood should always be removed from the timbers and planks of a ship, as, from its spongy texture and imperfect development, it is more liable to dry-rot than the heart-wood (besides being much weaker;) and when the dry-rot has once commenced, either in a ship or a house, it is rapidly propagated by contagion. The process of seasoning timber quickly by a current of heated air will be found amply detailed in the article Ship-Building.

Timber is bought and sold by solid measure, according to the number of cubic feet in the tree or log. The measurement of timber is therefore the operation by which these cubic contents are determined; that is, multiplying together the three dimensions, the mean length, the breadth and the depth of each log. If the log should vary much in size in different parts, then the length, breadth and depth of each of these parts must be multiplied together, and the contents of the log will be the sum of the products. When the log tapers, a mean breadth or depth is taken; the object in every case being, to attain the most correct approximation to the contents of the log. In measuring rough logs it is, however, usual, to gird the log at the measuring place with a string, and then, folding the string into four equal parts, to assume this fourth part of the girth to be one side of the square area at the measuring place; which area, when multiplied by the length, will give the solid contents of the log. The arithmetical operation, simple as it is, is universally superseded by the more simple and far more correct plan of referring to published tables of contents, calculated for every foot in length of a log, and every quarter of an inch in the side of the square. Those most generally used for this purpose are in HOPPERS' *Practical Measurer*.

In measuring standing timber the length is taken as high as the tree will measure 24 inches in circumference, less than which measurement is not considered as timber. At half this height the measurement for the mean girth of the timber in the stem of the tree is taken; one-fourth of this girth is assumed to be the side of the equivalent square area. The buyer has in general the option of choosing any spot between the butt-end and the half-height of the stem as the girding-place. All branches, as far as they measure 24 inches in girth, are measured in with the tree as timber. An allowance, which varies according to circumstances, is generally deducted for the bark. In oak it is from about one-tenth to one-twelfth of the circumference at the girding place; in other sorts of timber it is less. In all, however, this allowance depends much upon special agreement.

It is usual to speak of timber by the load, which means 50 cubic feet of squared timber, or 40 cubic feet of rough timber. A load of plank is dependent upon its thickness. Thus, it will require 200 square feet of three-inch plank to make the load of 50 cubic feet; therefore, the load of plank is the number of square feet of its respective thickness which is necessary to make the load of 50 cubic feet. Deals are measured according to their thickness and lengths, by the hundred, reckoning 120 to the hundred.

PRINCIPAL PLANTS AND THEIR USES.

EAGLEWOOD—BARWOOD—BRAZILETTO-WOOD—CASSIA—GUM COPAL—ACACIA.

WE are indebted for the following summary to the monthly *Chemist and Druggist*, London, 1861.—EDS. M. M.

ALOEXYLUM.—One of the two sorts of Calambac, Eaglewood or Lign Aloes, a fragrant substance, more grateful to Oriental nations than any other perfume, is the produce of the species *Agallochum*. LOUREIRO states that it consists of a concretion of the oily particles into a resin in the centre of the trunk, being brought on by some disease of which the tree ultimately dies. It is said to be stimulant, corroborant, cephalic and cardiac, and its scent is stated to be employed against vertigo and paralysis.

BAPHIA.—The dyewood, known under the name of Camwood or Barwood, is the produce of the species *Nitida*. It is stated to be employed, in conjunction with sulphate of iron, in the production of the dark red color of the English Bandana handkerchiefs.

BAUHINIA.—Fibers which are employed for the purpose of making ropes are obtained from the species *Parviflora*, *Racemosa* and *VahlII*. A brownish-colored gum is said to be produced by the species *Emarginata* and *Retusa*. The buds and dried flowers of the species *Tomentosa* are said to be employed by the Indian practitioners in dysenteric affections. An astringent bark is yielded by the species *Variegata*, which is used in medicine, and also for dyeing and tanning leather. Various other species are reported to be employed in Brazil for their mucilaginous properties.

CÆSALPINEA.—Braziletto-wood, which yields fine red and orange colors, is said to be the produce of the species *Braziliensis*. Brazilwood, employed for dyeing red, rose-color and yellow, is stated to be yielded by the species *Crista*. Nicaragua, Lima or Peachwood, employed for dyeing red or peach-color, is produced by the species *Echinata*. The exact species yielding these three dyewoods cannot, however, be said to have been yet determined with certainty. The wood of the species *Echinata* is stated to possess tonic properties. The legumes of the species *Coriaria*, “the Libidibi, or Divi-divi pods,” furnish us with one of the most astringent substances known; they are extensively employed for tanning purposes. The roots of the species *Moringa* and *Nuga* are said to be diuretic. An oil is stated to be obtained from the species *Oleosperma*. The legumes of the species *Papai*, termed Pi-pi, are employed for similar purposes to those of the species *Coriaria*, but are very inferior to them. The Bukkum, Bookum or Sappan-wood of India, used for dyeing red, is the produce of the species *Sappan*. The root known as Sappan-root, or yellow-wood, is employed for dyeing yellow.

CASSIA.—The seeds of the species *Absus* are very bitter, and somewhat aromatic and mucilaginous. They are employed in Egypt as a remedy for ophthalmia, under the title of Chichon, or Cismatan. The bark of the species *Auriculata* is stated by ROXBURGH to be employed in medi-

cine, and for the purposes of tanning and dyeing leather; the flowers are said to be used for dyeing yellow. The pulp of the fruit of the species *Fistula* (*Cathartocarpus Fistula*) possesses purgative properties, and is officinal in our pharmacopœia. That of the species *Braziliæna*, which is probably only a variety of the above, has a larger, longer and rougher fruit. It is employed in veterinary medicine, under the title of Horse Cassia, and possesses similar properties. The several kinds of Senna met with in commerce consist of the leaflets of various species, but the exact species yielding some of them cannot at present be said to have been accurately determined. The species *Officinalis* var. *Lanceolata*, and the species *Obovata*, are generally considered to be the source of the Alexandrian Senna. The common East Indian, Mecca or Bombay Senna is considered by ROYLE to be the produce of the species *Officinalis* var. *Acutifolia*. PEREIRA attributes it to the species *Blongata* of LEMAIRE, while FORSKAL states it to be from the species *Lanceolata* of FORSKAL and LINDLEY. Tinnevely Senna is said to be furnished by the species *Officinalis* var. *Elongata*. (*C. Lanceolata* of ROYLE.) These are the three kinds which are officinal in our pharmacopœias, and are generally employed in this country. Alexandrian Senna is frequently adulterated with the leaves of *Solenostemma* (*Cynanchum*) *Argel*. Nat. Ord. Asclepiadaceæ. The Asclepias, or Milkweed order, *Tephrosia Apollinea*. Nat. Ord. Leguminosæ, &c. These sophistications may at once be detected by the leaflets being *equal*-sided at their base, whereas the Sennas are all *unequal*. Tripoli Senna is stated to be the produce of the species *Æthiopica*, American of the species *Marilandica*, and Aleppo of *Obovata*.

CERATONIA.—The fruit of the species *Siliqua*, known as Carob, Locust, Algaroba Bean, St. JOHN's Bread, possesses a sweet, nutritious pulp, supposed by some to have been the food of St. JOHN in the wilderness. It is said to be used in the south of Spain as a food for horses, and is now imported into this country as a food for cattle. Singers are said to chew it for the purpose of improving their voice. The seeds are stated to have been the original carat weights of the jewellers.

CODARIUM.—The fruit of the two species *Acutifolium* and *Obtusifolium*, known as Brown and Velvet Tamarinds in Sierra Leone, have an agreeable pulp, which is eaten.

COPAIFERA.—Several species of this genus, if not all, furnish the oleo-resin known as Balsam of Copaiba, the quality of which, probably, varies with the species. Among the principal species are probably *Coriacea*, *Langsdorfii*, *Multijuga*, *Officinalis*, &c. The species *Bracteata* and *Pubiflora* furnish the Purple-heart or Purple-wood of Guiana, which is largely employed for mortar beds and the manufacture of musket ramrods.

DIALIUM.—The species *Indicum* yields a fruit having a delicate, agreeable pulp, less acid than that of the Tamarind. It is termed the Tamarind Plum.

EPERUA.—The species *Falcata* is the Wallaba tree of Guiana, which, according to Sir R. SCHOMBURGHE, yields a very durable wood, of a deep red color, frequently variegated with whitish streaks. The bark is bitter, and is stated to be used by the Arawak Indians as an emetic.

GLEDITSCHIA.—The species *Triacantha* yields a fruit similar to that of the *Ceratonia Siliqua*. In North America it is termed the Honey Locust.

GUILANDINA.—The species *Bonduc*, or Nicker tree, yields a bitter tonic

bark. The seeds are very bitter, emetic and tonic, and the leaves are stated to possess discutient properties.

HÆMATOXYLON.—The species *Campechianum* yields the wood commonly known as Logwood, employed in medicine as an astringent and tonic, and also for dyeing and other purposes. It contains two crystalline coloring principles, hæmatin and hæmatoxylin.

HYMENEA.—The species *Courbaril*, West Indian Locust tree, is supposed to yield Gum Anime, or East Indian Copal. The inner bark is stated to possess anthelmintic properties. The fruit contains a mealy substance, which is sweet and pleasant; when boiled and allowed to ferment it is said to form an intoxicating drink, resembling beer. The timber is close-grained and tough, and is employed by ship-carpenters for planking vessels, &c. The species *Verrucosa* probably yields some of the East Indian Copal. A species of this genus probably yields Mexican Copal. Brazilian Copal is thought to be furnished by several species of this genus, and by *Trachylobium Martianum*, a plant belonging to the same sub-order. Several species of the genus, together with *Guibourtia Copallifera*, are probably the source of the substances known as African Copal, African Yellow Gum and African Red Gum.

MORA.—The wood of the species *Excelsa*, a large tree, a native of Guiana, is largely employed for ship-building, under the name of Mora-wood.

PARKINSONIA.—The stems of the species *Aculeata* furnish useful fibers.

POINCIANA.—The leaves of the species *Pulcherrima* are stated to possess purgative properties, and the roots are said to be tonic.

SWARTZIA.—A powerful sudorific, known as Panococco Bark, is obtained from the species *Tomentoso*; the wood is stated to be very hard and intensely bitter. The seeds of the species *Triphylla* are stated to be excessively acrid.

TAMARINDUS.—The fruit of the species *Indica* constitutes the well-known Tamarind, which, when preserved with sugar, forms a very agreeable confection. The pulp is acidulous, sweet and agreeable, and is an official article in the *Materia Medica* of our pharmacopœia. It is employed in the preparation of a cooling, laxative drink.

SUB-ORDER MIMOSEÆ.

GENERAL PROPERTIES.—The production of gum and the presence of astringent principles are the chief characteristics. Some possess emetic qualities, a few are stated to be purgative, and a small number are reputed to be poisonous.

PRINCIPAL PLANTS AND USES.

ACACIA.—The various varieties of gum are obtained from this genus. Gum Arabic is principally obtained from the species *Vera* and *Nilotica* of **DELILE**. The species *Arabica* and *Speciosa* yield East Indian Gum; the species *Affinis*, *Decurrens* and *Mollissima*, South Australian; the species *Karoo*, Cape; and the species *Adansonii*, *Seyal*, *Vera*, *Verek*, &c., Gum Senegal. The gum of one of the species is stated to constitute an important article of food to the natives of the Swann River. The wood of the species *Arabica* is employed in India for making wheels

and tent-pegs, and its bark is reputed a powerful tonic, and, together with that of the species *Catechu*, is extensively used under the name of Babool. The powerful astringent substance known as Cutch, or Catechu, is an extract obtained from the duramen or heart-wood of the species *Catechu*. It is largely employed for dyeing and tanning, and constitutes one of the officinal substances of our pharmacopœia. The flowers of the species *Farnesiana* are very fragrant, and yield, by distillation, a delicious perfume, to which powerful virtues have been ascribed. The wood employed in the construction of the stairs of the Crystal Palace in Hyde Park, at the Great Exhibition of 1851, and which, on its removal, was found to be but little worn, was the produce of the species *Formosa*, a native of Cuba. It is very hard, tough and durable, of a dull red color, and termed Sabicu. An intoxicating liquor is said to be prepared in India, by distilling the bark of the species *Ferruginea* and *Leucophæa* with jagghery water. The bark of the species *Melanoxydon*, a native of Australia, is sometimes imported, under the name of Acacia Bark. An extract of the bark, very valuable for tanning, is frequently imported. Another astringent product for tanning purposes is that imported under the names of Neb-neb, Nib-nib, or Bablah; it consists of the dried legumes or pods of the species *Nilotica*. The species *Seyal* is probably the Shittah tree, or Shittam-wood, of the Bible. The species *Varians* is said to be poisonous. Several species are much prized in our gardens for the beauty of their blossom and foliage.

ADENANTHERA.—A dyewood is yielded by the species *Pavonia*, called in India Ruktachundum, or Red Sandal-wood. (This must not be confounded with that produced by the *Pterocarpus Santalinus*.) The seeds are of a bright red color and perfectly smooth, and are said to be employed, under the name of Barricarri Seeds, in the northern parts of South America, for making necklaces, &c.

ENTADA.—According to HORSFIELD, the species *Pursatha*, of Java, is emetic. The large brown beans are termed Gela, and are used by the natives for washing their hair.

ERYTHOPHLEUM.—The species *Guineense* is the Sassy tree of Western Africa. It is used in certain parts of Africa, under the name of Ordeal Bark, or Doom Bark, as a supposed test of the innocence or guilt of persons suspected of great crimes, as secret murder, &c.

INGA.—The pods of the species *Fæculifera*, or Poix Doux, of St. Domingo, contain a sweet pulp, having purgative properties, which is used by the natives. Similar qualities are stated to reside in the pulp of the pods of the species *Vera*, and that of *Tetraphylla* is sweet and mucilaginous. The species *Vera* possesses astringent properties.

MIMOSA.—The root of one of the Brazilian species is stated to possess poisonous properties. The roots of the species *Sensitiva* are said to evolve a most unpleasant odor, resembling that emitted from sewers in time of impending rain.

PARKIA.—The seeds of the species *Africana* are stated to be roasted in the same manner as coffee, bruised, and allowed to ferment in water; when they begin to become putrid, they are well washed, pounded, and made into cakes in a similar fashion to chocolate. They are stated to be an excellent sauce for all kinds of meat. A pleasant drink is formed from the farinaceous matter surrounding the seeds, and a sweetmeat is also made from it.

JOURNAL OF NAUTICAL INTELLIGENCE.

I. IRON AND WOODEN NAVAL VESSELS. II. IRON SHIPS. III. REVOLVING SHIPS' RIG. IV. NEW PATENTS. V. LIGHT-HOUSE SERVICE IN GREAT BRITAIN. VI. CONTRIBUTIONS TO NAUTICAL SCIENCE. VII. STEAM RAM, DEFENCE. VIII. MASTS OF THE WARRIOR. IX. SHIP GREAT REPUBLIC. X. NAMES OF NEW GUN BOATS. XI. NEW LIGHT-HOUSES.

IRON AND WOODEN NAVAL VESSELS.

ACCORDING to the London *Mechanics' Magazine* the first question for discussion is the comparative value of iron and wooden ships-of-war. In favor of the latter we have a conservative party represented by Sir HOWARD DOUGLAS, who is probably the ablest living advocate of "wooden walls." It is his opinion "that ships formed wholly, or nearly so, of iron, are utterly unfit for all the purposes and contingencies of war, whether as fighting ships or as transports for troops." In opposition to this opinion Mr. J. SCOTT RUSSELL endeavors, and we think successfully, to establish:

1. That iron steamships-of-war may be built as strong as wooden ships of greater weight, and stronger than wooden ships of equal weight.
2. That iron ships of equal strength can go on less draught of water than wooden ships.
3. That iron ships can carry much heavier weights than wooden ships.
4. That they are more durable.
5. That they are safer against the sea.
6. That they are safer against fire.
7. That they are much safer against explosive shells.
8. That they are much safer against molten metal.
9. That they are much safer against red-hot shot.
10. That they can be made impregnable even against solid shot.

In a recent paper on the form of ships, by ROBERT DUNCAN, Glasgow, the following proportions for side-wheel steamers are given: Length, equal to ten times the beam; depth, six-tenths of beam; draught of water, seven-tenths of depth, or forty-two of beam; the co-efficient of displacement, fifty-five per cent.

IRON SHIPS.

As Sir H. DOUGLAS has attacked the construction and sailing qualities of the Great Eastern, his opponent first disproves his assertions and predictions regarding her, and then states the facts regarding iron war-ships which have been ascertained by actual experiment. Experience has proved, first, that "when the thickness of a vessel's side is not more than half an inch, shots fired obliquely have glanced off the iron vessel which would have penetrated a wooden ship; second, that shots fired directly have passed through both sides of the ship, doing less damage to the ship directly and less damage by splinters than would have been the case in timber ships; third, that the shot holes have been as easily stopped, and more expeditiously and less expensively repaired than in wooden

ships; fourth, that their plates of wrought-iron, even five-eighths of an inch, are proof against shells; that iron plates four inches and a half thick are nearly impenetrable to shot fired from the heaviest nature of guns; and, finally, that plates six inches thick are practically impenetrable."

REVOLVING SHIPS' RIG.

The revolving rig of Capt. COLES, of this city, has just been applied to the square sails of the bark *Liverpool*, now lying at the dock a short distance from the Grand-street ferry, East River. The sails by this are worked from the deck; not a man is required to go aloft. A long roller is suspended in brackets connected with the lower yard, and the sail is wound up on this roller by revolving it with ropes or chains from the deck. The sail is rolled up exactly like a piece of cloth on a weaver's beam, and any amount of its surface can easily be taken in or exposed as required. This rig is exceedingly snug, and although the *Liverpool* (now somewhat old) is the first vessel to which it has been applied in this port, those who command her believe it will operate well, and save a great amount of labor, while it ensures greater safety. Such sails can be operated more rapidly than those which are rigged by the common method.

NEW PATENTS.

For an improved spring tackle for the sheets of fore-and-aft rigged vessels. WILLIAM WOODBURY, of Gloucester, Mass., patentee.

Mr. WOODBURY claims the spring B., in combination with the traveller C., and sheet E., operating substantially as described, for the purpose specified.

For an improvement in safety ships. E. S. WILLSON, of Saratoga Springs, New-York.

Mr. WILLSON claims a refuge cabin in combination with the layers of cement and water bed, air boxes and device for ventilation—the whole constructed and all its parts arranged substantially as specified.

For an improved life-boat. J. T. SCHOLL, of Port Washington, Wisconsin.

Mr. SCHOLL claims, first, the cylindro-conical life-boat constructed of separate slats, hinged together and capable of folding up, in combination with a water-proof fabric and metallic sheathing.

Second, he claims, in combination with the cylindrical part of the boat, the hinged folding heads.

This invention and improvement in life-boats consists, first, in constructing the body or hulk of the boat in the shape of a cylinder, terminating at each end in a cone, said cylinder and cones being made up of slats or staves which are covered on the outside with a suitable water-proof fabric and also with metal plates, all of which are jointed and hinged together so as to be water-tight, and to admit of being folded up. It also consists in two hinged heads capable of being folded up with the boat, which are within each end of the cylindrical part of the boat, and acted upon by springs, which springs and heads operate to prevent the boat from collapsing while in the water, and to keep the boat in a proper condition to carry passengers. It also consists in a revolving spring arm arranged on

the propeller shaft, in conjunction with certain spring valves which cover port-holes or ventilators through the cylindrical part of the hull, said arm being made to open the valves when the parts are above water. It also consists in a rolling carriage or platform furnished with seats for passengers, and arranged within the boat in such a manner that the boat or hull thereof will revolve independently of said platform.

THE LIGHT-HOUSE SERVICE OF GREAT BRITAIN.

According to the *London Times*, the authorities constituting the light-house administration of the kingdom are computed to be 174 in number. Of these about 170 are local authorities, empowered by various charters or customs to superintend the lighting and marking of coasts, rivers or harbors at particular spots. Then come three general authorities—the Trinity-house for England and Wales, the Commissioners of Northern Lights for Scotland, and the Ballast Board of Dublin, for Ireland. Lastly, there is the Board of Trade, which, by a recent act, requires certain prerogatives of chief control. In respect of the distribution of power, it may be observed that the Trinity-house has some authority over the Scottish and Irish boards, and the Board of Trade a controlling authority over the Trinity-house. In connection with this department, too, the general authorities have certain powers over local authorities, but they are not very commonly exercised or very extensively applied. Indeed, it is not to be supposed from enumeration that there exists any complete chain of responsibility or graduation of power. No such system prevails. It is true that the ultimate appeal lies apparently to the Board of Trade, and that board seems to have concerned itself actively with the finances of the service, but to have been rather more solicitous about economical administration than immediate inspection or superintendence. Such being the number and nature of the boards engaged, it is now necessary to say something about their constitution, and, for the sake of conciseness, we had better explain what elements they lack than what they comprise. In no one of the four governing bodies, though they are all differently constituted, is special knowledge of the subject exacted as a qualification for membership. The elder brethren of the Trinity-house having been mariners by profession, have certainly a general knowledge of the sea, but not necessarily any thing more. The Scottish board is principally recruited from the legal profession, the Irish board from a mercantile and commercial circles. As for the Board of Trade, it is, of course, notorious that its members, however able, are not selected for their acquirements in optical engineering, and of the whole matter the commissioners observe that “the government of light-houses in the United Kingdom, their management and construction, are all confined to bodies of gentlemen of various employments, none of which necessarily afford them an opportunity of acquiring a knowledge of those branches of science which bear upon light-house illumination.” Very different is the state of things in other countries. In France, of course, the organization is perfect. There “lights are placed on a system that their lights should cross. They are inspected on system—the size of the flame, the quantity of oil to be consumed in an hour to produce a good light, the minutest detail is provided for and calculated to a nicety, and

the whole system hangs together and is under one man." In Spain the administration is similarly organized; in Denmark, Sweden, Norway, Holland and Austria, the service is under the Ministry of Marine. In the United States, Russia, Hanover and Hamburg, there are central boards of superintendence, constituted with special reference to the duties on hand. Even in Turkey, the service was conceived to be under the Admiralty, though the Ottoman "department" was "at a loss to furnish information."

However, we are not prepared to say that very much is provided by this array of contrasts, or by arguments to which most of our institutions would be exposed in a similar degree. We have our own way of doing things, and our way is not remarkable for simplicity or system. We are all for "self-government" and all against "centralization." We have a natural antipathy to "Boards" and we are in the habit of looking rather to results than to means. In short, if the light-house service of the kingdom is efficiently administered, we would not be likely to care much about the methods by which efficiency was attained. That would be the point, beyond doubt, on which opinion would turn, and here it is impossible to avoid remarking that the actual condition of our coast lights, as described by the commissioners, is really superior to any thing that could be expected after the description of the management. Complex and ill-organized as our system may appear, the result cannot be termed discreditable to us. The report frankly admits that Great Britain is better lighted than any other country except France, and nearly as that. The French, it must be remembered, had an immense advantage in commencing with a *carte blanche* only thirty or forty years ago, while we have a system which is the growth of ten generations. No doubt, the contrast is striking, and the effect, unluckily, is visible at very conspicuous points. The commissioners tell us that the harbor lights at Dover, Folkestone and New-haven "present a singular variety of faults, comprising among them nearly all those which can be committed in light-house arrangements." No sooner, however, does the British tourist leave his own shores than he comes at once at Calais, Boulogne or Dieppe, "to small but brilliant harbor lights, which are all dioptric, and in the construction and management of which there are displayed all the achievements of the science of illumination." Of course this is rather aggravating; but much the same may be said of a dozen other usages on the two sides of the channel. We are English, and our neighbors are French. In saying that we have said nearly all, and what is more, we doubt if any novelties of management will enable us altogether to unsay it. Many of our light-houses are admirably kept—the Scottish lights particularly, and the floating lights everywhere. In some respects we are even ahead of the French, for we supply our light-keepers with books and medicine-chests, whereas the French show no such consideration for their servants.

Still there is evidently room for reform. Much of the praise bestowed by the commissioners has been earned by the general authorities exclusively, the performances of the local authorities, with a few honorable exceptions, being greatly inferior. The evils, too, arising from want of uniformity, are truly serious. A danger signal in one place means safety in another. The system of buoyage varies everywhere; it is one thing in the port of Liverpool, and exactly the opposite thing in the port of Dublin. Even colors and flags do not always tell the same story, and of local

lights, buoys and beacons together, it is generally affirmed that they are managed on independent systems, without any uniformity, and with but indifferent results. After what we have said, the main features of the commissioners' proposals will probably be anticipated. They recommend the formation of a central Board, with a scientific staff. They consult the interest of existing bodies, by vesting the elections of certain of the new managers in the hands of the old authorities, with the reserve of a place to be filled by government, and they retain even an antiquity of title in styling the new board the "Trinity Commissioners for Lights." After adding four official members, they would connect the board for purposes of parliamentary responsibility, either with the Board of Trade or the Admiralty, and they conclude with a natural anticipation that their suggestions may result in an improvement of our light-house administration and increased security to the navigators of British waters. All this we place before the public as it is given. The discussion of the proposed scheme will follow soon enough, and we will only add, therefore, that in our opinion the results of this very thorough inquiry, though they have brought many defects to light, and suggested many reforms, ought really to make us thankful that a system so unpromising in appearance could be worked with such respectable effect.

CONTRIBUTIONS TO NAUTICAL SCIENCE.

The eighth meeting of the Literary and Philosophical Society was held at the Royal Institution, in February last, the Rev. H. H. HIGGINS, President, in the chair.

A paper was then read by Dr. DOBSON, head-master of the CONWAY, entitled "Contributions to Nautical Science." Mr. DOBSON said:—Of all men the sailor is most indebted to the mathematician, who has framed the rules which the sailor practices and relies upon; and computed the numerical data which the sailor takes from his nautical almanac, data which embody the practical results of mathematical problems of the very highest order of difficulty, and which have taxed the powers of the greatest mathematicians from NEWTON's time to our own. Nautical science, then, having thus been constructed by help of the higher mathematics, offers an ample field for simplification; and that such a process is most desirable, will be obvious when we reflect how essential a clear knowledge, both of the principles and practice of nautical science, is to that numerous and valuable body of men who are responsible for all the lives and property afloat. Such knowledge is more than ever indispensable in these days of steamships, clippers and rapid passages, when a merchant captain must strain every nerve, and, what is much worse, run every risk, in order to satisfy an exacting public, by making a passage in the shortest possible time. It is evident that the danger from an error in the reckoning of a dull-sailing vessel is much less than in that of a long, sharp clipper, on the principle, that the farther you go on the wrong road the more you go wrong. The first subject to which I shall ask your attention this evening is a question relating to practical navigation, and may be enunciated thus: "The direction of the wind and the course of the ship being known, required the direction of the sails, so that the ship

may make the most headway." This problem belongs to the most difficult class of *maxima* and *minima*, which are most successfully attacked by means of the differential calculus, and thus I first accomplished its solution. But, anxious to bring it within the reach of my pupils, I reconsidered it, and succeeded in solving it by means of plain trigonometry, and at last was rewarded by discovering the simple geometrical proof which follows. I am not aware that this problem has been published in any form. It is certainly not mentioned in any of the numerous English and foreign works on navigation that I have consulted.

In some of the most important practical applications of nautical astronomy, where two altitudes of a heavenly body are taken at an interval of a few hours, during which the vessel has been proceeding on her course, it is necessary to reduce the first altitude to what it would have been if it had been measured at the place where the ship is when the second observation is made. My second contribution to nautical science is a simple elementary investigation of the value of the correction to be applied to the first altitude to compensate for the "run" of the ship, as it is called. This value, of course, is well known; but the proof is well adapted for instruction, inasmuch as it has the advantage of placing clearly before the student the things which he is required to reason about, and is made to depend upon the rule for parallel sailings, the simplest case in spherical trigonometry. In this case, as in several others, I had the alternative of either investing a simple intelligible proof, or of giving the rule to my pupils without demonstration, and resting on authority alone, a mode of proceeding altogether inconsistent with sound teaching. These "contributions" were each of them accompanied by their appropriate mathematical proof.

At the conclusion of the paper, the Rev. J. ROBBERDS made some remarks expressive of his gratification at the excellent and lucid style adopted by Mr. DOBSON, which could not fail to be useful in the communication of information to his pupils.

LAUNCH OF THE STEAM RAM, DEFENCE.

The steam ram, *DEFENCE*, was launched from the yard of Messrs. PALMER & JARROW on the 24th of April, at Newcastle, England. The launch was of a most successful description; and the ship, as she floated to the other side of the river, was greeted by the enthusiastic plaudits of the assembled spectators and workmen. When fairly launched she drew about eighteen and one-half feet of water; and after the machinery is fitted up it is supposed that the draught will be nearly twenty feet. The next task was the removal of the vessel to the dock. A large cable chain unexpectedly giving way, however, the frigate suddenly grounded; and with all the efforts that could be employed, it was found impossible to get her off by that tide. The extreme length of the *DEFENCE* is two hundred and ninety-two feet; breadth from the beams, fifty-four feet; the extreme depth, thirty-eight feet two inches. She is 3,669 tons register, and has been pierced for twenty-eight guns. The engines possess six hundred horses' power, and the speed at which the frigate is reckoned to sail is at the rate of ten knots an hour. After the manner of the *GREAT EASTERN*, she is double-bottomed, and is iron-plated to the extent of one hundred

and seventy feet to two feet below the water-line. The bulkheads are covered by armor plates, which are furnished with plated doors of the same material. She is further surrounded by wing passages in the inside on each side, the object of these being to enable the men on board to pass along to plug up any holes made by guns. The armor plates with which the vessel is cased are of various lengths, from thirteen feet to seventeen feet, by about three feet three inches wide and four and one-half inches thick, and weigh from four to five tons each. Underneath the plates are eighteen inches of teak, beneath which lies the actual skin of the ship. Strength and security seem to be the guiding mottoes by which the builders have been actuated. We consequently find that the armor plates have been bolted in with inch and a half bolts; and the edges have been "feathered and grooved," similar to the deals of a floor. On the fighting deck and in the bulkheads are two doors, by the passage afforded by which cannon can readily be transferred from one part of the vessel to another. At the stern the new frigate is strongly fortified by an elaborate process, being intended to act as a steam ram; and with a prominently projecting beak, the workmanship is so arranged that a hostile ship would be struck under the water-line and immediately sunk. The stern falls in at the head between five and six feet, in the shape of the rudder; and at midships is a kelson forty-four inches in thickness, which is carried right up to the stern, and is also of immense durability. The upper and main decks are of iron; the fighting decks being composed of oak of about six inches in thickness. The magazines are within the armor-coated portions of the ship, and below the water-line; and when finished it is expected that she will be able to carry twenty 100-pounder Armstrong guns.—*Newcastle Daily Chronicle*.—The DEFENCE was floated off on the 25th without having sustained any damage.

THE AMERICAN SHIP GREAT REPUBLIC.

The GREAT REPUBLIC, said to be the largest sailing ship afloat, arrived in the Mersey on the 17th July from San Francisco, having made the passage in ninety-five days. She carries four masts, and she is 3,356 tons burthen. She has on board upwards of 3,000 tons of wheat, consigned to Messrs. FREDERICK HUTH & Co., Chapel-street. The GREAT REPUBLIC is at present anchored off New-Brighton, but when the tide answers she will go into the Huskisson Dock to discharge her cargo. She is commanded by Captain LIMBURNER.

NAMES OF THE NEW GUN-BOATS.

Indian names are to be given to the new gun-boats now building for the government. The boats building in Maine are to be named "KATAHDIN," "AROOSTOOK," "PENOBSCOT" and "KINEO." Those in Massachusetts, "MARBLEHEAD," "SAGAMORE," "CHOCURA" and "HURON." In Connecticut, "OWASCO," "KANAWHAT" and "CAYUGA." In New-York, "UNADILLA," "OTTAWA," "PEMBINA," "SENECA," "CHIPPEWA" and "WINONA." In Pennsylvania, "ITASCA," "SCIOTO" and "WISSAHICKON." In Delaware, "LAHOMA." In Baltimore, "PINOLA."

THE MASTS OF THE WARRIOR.

The masts, spars and other gear for the *WARRIOR*, iron naval steamer, have been put on board that vessel by the shipwrights sent from Woolwich dock-yard for that purpose. The main and foretopmasts are of large size and strength, each measuring sixty-five feet in length, and weighing rather more than three tons. The mizzen-topmast measures fifty feet, and its weight is about two tons. The fore and main-yards are each as large as the masts of many large ships, each measuring one hundred and five feet in length, and weighing upwards of six tons. The length of the mizzen-yard is seventy-one feet. The three topsail-yards are also of great size and strength, the two largest being each seventy-four feet long, and weighing about two tons. The whole of the masts, yards, &c., for the *WARRIOR* have been constructed of unusual strength, under the immediate superintendence of the officials connected with the masting departments at Chatham dock-yard.

The *WARRIOR*'s chain cables, (two and three-eighths inch,) manufactured by Messrs. LENNOX & Co., have been tested at Woolwich and bore the strain of one hundred and one tons, ordered by the Admiralty as the regulated test, well.

NEW LIGHT-HOUSES.

Roman Rock Light.—*False Bay, Cape of Good Hope.*—Official information has been received at the Light-House Board through the Department of State, from the Colonial Government at the Cape of Good Hope, under date of the 17th June last, that a light will be exhibited from the new light-house on the Roman Rocks on the 16th September, 1861, which will supersede that shown at the light-vessel now moored a cable's length north of the rocks. It will be a *revolving white* light, showing a *bright* face for the space of twelve seconds *twice* every minute, which will serve to distinguish it from the Cape Point light in thick weather, as that light revolves only *once* every minute. The light will be fifty-four feet above the sea, and visible in clear weather from a ship's deck thirteen miles distant.

The light-tower is forty-eight feet high, the lower half of which will be painted black and the upper half white. From the light-house, Noah's Ark bears S. 56° W. 7-10 miles, and the Dock-yard clock W. by N. 1.65 mile.

N.N.E. $\frac{3}{4}$ E. 2 $\frac{1}{4}$ cables from the light-house, lies the *Castor Rock*, with only fifteen feet on it at low water, springs; its position is marked by a beacon, with a flag having the word "rock" painted on it. There are patches of nineteen and twenty-four feet between the *Castor Rock* and the light-house, which renders it necessary for large ships to give the light-house a berth of at least three and a half cables, when passing to the N.E., before hauling in for Simon's Bay.

In sailing for Simon's Bay, by keeping the light-house in line with Elsey Peak, bearing N. $\frac{1}{4}$ W., a ship will pass midway between the Whittle Rock and Miller's Point.

STATISTICS OF TRADE AND COMMERCE.

I. SANDWICH ISLANDS AND JAPAN. II. BOSTON IMPORTS FROM LIBERIA. III. THE ICE TRADE. IV. FAILURES IN THE LEATHER TRADE. V. THE SUGAR PINES OF THE SIERRAS. VI. BANKA STRAIT. VII. TRADE WITH THIBET. VIII. THE AMERICAN WAR AND GERMAN COMMERCE. IX. DECLINE OF SALMON. X. CURIOUS JAPANESE DOCUMENTS. XI. FRANCE AND AMERICA. XII. SCOTTISH COMMERCE. XIII. TRADE OF KURRACHEE. XIV. TRADE WITH TURKEY. XV. TRADE AND PRODUCTS OF SIAM. XVI. NEW FRENCH TREATY. XVII. FRENCH TREATY WITH TURKEY. XVIII. MEXICAN COAST TRADE. XIX. FRENCH WINES. XX. PERSIAN COTTON. XXI. SUGAR AND COFFEE TRADE.

SANDWICH ISLANDS AND JAPAN.

THE steamer *SURPRISE* sailed from Honolulu June 16th, for Kanagawa, Japan, having touched there to take on board a fresh supply of coal. She is apparently a frail boat, entirely unfit for a sea voyage, and could not, probably, survive any severe storm. Yet, as she came from New-York around Cape Horn, she may reach her destination in safety. From Kanagawa she will cross over the Yellow Sea to Shanghai, where she is to be employed as a passenger and freight boat on the Yang-tse-Kiang River. Should she arrive there safely she will, no doubt, prove a handsome speculation to her owners, for she is most admirably adapted to the navigation of a large river like that, and will outsail anything that ever was floated there before her. Still, few could be induced to make a voyage across the Pacific in her, and, as a gentleman remarked, "none but a Yankee would ever attempt it."

BOSTON IMPORTS FROM LIBERIA.

The bark *JUSTICE STORY* has arrived from Monrovia, Africa, with palm oil, camwood, ivory, sugar, molasses, &c. This vessel took out the young man, LEO L. LLOYD, to Monrovia, some eight months since, with a large supply of goods from Boston merchants, who were interested in his success. She already makes handsome returns in African produce, and thus extends our commercial intercourse with that country, which we hope may be largely increased.

We understand that these African sugars and syrups are more valuable to the manufacturer, as they contain the full native strength of the article, the producers not having yet learned all the arts of adulteration of their more civilized competitors in the West Indies. We commend them to the attention of our dealers and manufacturers here, and trust the prices realized for them may lead to further shipments.

THE ICE TRADE.

The exports of ice this year from Boston, up to Aug. 1st, amounted to 74,065 tons, against 97,883 tons in same period last year. The *Philadelphia Journal* says the present price of ice in that city is 55 cents for 56 pounds per week, against 40 cents last year. The excuse of the ice companies

is, that there was almost a total failure in the home crop this last winter. Honolulu is again to be supplied with ice by the agent of the Sitka Ice Company, who will supply the article from Sitka, Russian-America. The schooner *EMMA*, on her recent trip from San Francisco to Mazatlan, took on board sixty tons of ice, shipped by the Russian-American Ice Company to Mazatlan, where they have an agency established for its sale. The supply of ice at Richmond, Va., is very limited. The ordinary use is stopped, that enough may remain for sickness and extraordinary occasions.

THE FAILURES IN THE LEATHER TRADE.

Mr. Commissioner PERRY, of the Liverpool Bankruptcy Court, gave a judgment in the case of Mr. THOMAS BARTON, a tanner and fellmonger, who was brought down in the great crash in the leather trade, his liabilities amounting to about £200,000. His Honor strongly denounced the reckless trading of the bankrupt—his extensive borrowing of capital at ruinous rates of interest—and his bill transactions with LAURENCE, MORTIMORE & Co.; (the acceptance and renewals he gave to that firm during three years exceeding £600,000;) and intimated that the certificate must be wholly refused and protection withheld. Notice of appeal was given on behalf of the bankrupt.

THE SUGAR PINES OF THE SIERRAS.

We were very tired when we dismounted at CLARKE's log hut and canvass dining tent in the glorious forest, thirty miles from Mariposa—tired in body and in brain; tired by our seven hours of horseback riding, and by the perpetual feast of floral beauty and sugar-pine magnificence which had delighted eye and heart. But it did not require a long time to restore us. Half an hour's rest under one of the stately firs that towered above the cabin, and a cup of tea with our noon meal, fit for a mandarin, put us in good working trim for the afternoon's excursion. We were only five miles from the mammoth trees. An easy upland ride of an hour would lead us to the grove where the vegetable Titans we had so often read about, with a wonder tinged with unbelief, held their solemn court.

And I confess that I began to doubt, as the time for mounting again approached, as to the existence of the marvels. Was it possible that before sunset I was to stand by a living tree more than ninety feet in circuit, and over three hundred feet high? Think what these figures mean, my hasty reader, when transformed into solid bark and fiber. Take a ball of cord, measure off a hundred feet from it, cut it and tie the ends, and then, by the aid of four or five of your companions, stretch it into a circle, (if you have a parlor spacious enough to permit the experiment,) and imagine that space filled with a column of a vigorous cedar. Now conceive this tree rooted on the common near the entrance. What do you say to the idea of looking up its smooth trunk to a point higher than the topmost leaf of any elm on the Tremont-street mall, and of seeing there a bough thicker than the largest of those elms shooting out from it? What do you say to the fact that its plumes would nod a hundred feet above the vane at Park-street spire? What say you to the

possibility, if it lay hollow on the ground, of driving a barouche and four through it without their being able to touch the highest point of its curved ceiling "with a ten-foot pole?" Then think of it cut up into six thousand cords of wood.

The Mariposa grove stands as the Creator has fashioned it, unprofaned, except by fire, which, long before the advent of Saxon white men, had charred the base of the larger portion of the stalwart trees. We rode on for an hour, climbing all the time, till we reached a forest plateau, five thousand feet above the sea. This, in New-England, is the height of Mount Washington, where not a scrub can grow. Riding on a few rods, through ordinary evergreens with dark stems, we at last catch a glimpse of a strange color in the forest. It is a tree in the distance, of a light cinnamon hue. We ride nearer and nearer, seeing others of the same complexion starting out in the most impressive contrast with the sombre columns of the wilderness. We are now in the grove of the Titans. We single out one of them for a first acquaintance, and soon dismount at its roots. I must confess that my own feelings, as I first scanned it, and let them roam up its tawny pillar, was of intense disappointment. But then I said to myself, this is doubtless one of the striplings of the Anak blood—only a small affair of some forty feet in girth. I took out the measuring line, fastened it to the trunk with a knife, and walked around, unwinding as I went. The line was seventy feet long. I came to the end of the line before completing the circuit. Nine feet more were needed. I had dismounted before a structure eighty-four feet high, and should not have guessed that would measure more than fifteen feet through. It did not look to me twice as large as the Big Elm on the Common, although that is only eighteen feet in circumference, and this was twenty-eight feet in diameter. During the day I had seen a dozen sugar pines which appeared to be far more lofty. The next one we measured was eighty-nine feet and two inches in girth; the third was ninety feet. There are nearly three times as many of the giant species in this grove as in the Calaveras cluster. Divided into two groups there are six hundred and fifty of them within a space of one mile and three-quarters. Colonel WARREN, the faithful and self-sacrificing friend of agricultural interests in this State, proprietor and editor of the *California Farmer*, measured the principal trees of one group on this ridge, some three years ago, and found one of 102 feet, two of 100 feet, one of 97 feet, one of 92 feet, one of 82 feet, one of 80 feet, two of 77 feet, three of 76 feet, and thus gradually diminishing, till more than a hundred trees were on his list that measured fifty feet and upwards in circumference. This crowd of majestic forms explains the disappointment in first entering the grove. The general scale is too immense. Half a dozen of the largest trees spread half a mile apart, and properly set off by trees of six or eight feet in girth, would shake the most volatile mind with awe.

Four days afterwards, on the homeward path by another trail, I struck off the track with one of our party to see some "big trees" that were reported to us as a mile from the path, near CRANE's Flat. We found them. The first one we approached was the only one of the species in the range of vision, and reared its snuff-colored columns among some ordinary firs. How majestic it swelled and towered! My companion and I both exclaimed: "This is the largest tree we have yet seen; this

will measure more than a hundred feet." We gazed for a long time at its soaring stem, from which, a hundred feet above us, the branches that shot out bent suddenly upwards, like pictures of golden candlesticks in the Hebrew temple. It seemed profane to put a measuring tape upon such a piece of organized sublimity. But we wanted to know how much more than a hundred feet could be claimed for it, and I made the trial. It was just fifty-six feet in circuit, but little more than half the size of the monarchs in Mariposa, which it seemed to excel so much in majesty. There were a hundred trees in the Mariposa grove larger than this, and all of them together did not make half the impression on me that this one stamped into the brain at first sight.—*From a California Letter in the Boston Transcript.*

BANKA STRAIT.

It is estimated that upwards of 1,000,000 tons of British shipping pass annually through Banka Strait, the new channel lately discovered by Mr. W. STANTON, master and commander of her Majesty's surveying vessel SARACEN, in going to and returning from China. The *Straits Times*, in commenting on these facts, says: "The saving, therefore, effected in demurrage by the new route, to say nothing of the less chance of wrecks and other casualties, is almost beyond computation. Banka Strait has hitherto had a very unenviable reputation on account of the great number of accidents constantly occurring in the course of the dangerous and intricate passage. In the last expedition to China the majority of the men-of-war passing through got ashore, and some of them ran a very narrow escape of total loss. Her Majesty's ship TRANSIT, with troops, was entirely wrecked, but since the publication of the present chart not one vessel, adopting the new route, has got ashore. On the other hand, the passage of the Lucipara Channel is fast becoming impracticable to large ships, as the officers of the SARACEN found, in the course of their examination, that it was fast filling up."

TRADE WITH THIBET.

Mr. J. D. HOOKER writes to the *Times*: India, it is believed, will eventually become the greatest tea-producing country in the world. Central Asia, from Thibet to Siberia, inclusive, is the largest tea-consuming area in the world, but it does not produce a leaf of tea. Sixty miles only intervene between Thibet and the British tea plantations in Sikkim, but all the tea consumed in Thibet comes from China, 1,000 miles to the eastward, and over numerous chains of lofty mountains. The Russians are as great tea-consumers as the Asiatics, and they are rapidly pushing their outposts southward and eastward, towards the Himalaya; but neither does Russia contain in all her vast dominions one acre of tea-producing land. The Thibetans are, further, most eager to procure broadcloths, cutlery and a great variety of English wares and Bengal produce; for which they barter shawl wool, salt, borax, musk, flour, gold dust, amber, turquoises, copper, sheep, and ponies of a breed which is invaluable both in the plains and hills of India. With regard to the alleged difficulties of the passes, it is enough to state that every bit of wood used in house-

building in Thibet goes across the Himalaya, and that in one day I have counted several hundreds of yaks, mules, ponies, sheep, goats, dogs, men, women and children crossing a pass upwards of 18,300 feet high; every biped and quadruped loaded, according to its powers, with planks of wood, rice, millet, Indian corn, sugar, tobacco, spices, bamboos, rattans, cotton and silk stuffs, and numberless other products of the Himalaya valleys, to be bartered for brick, tea, Chinese crockery and the articles I have enumerated above. Again, no circumstance that came under my observation in India so surprised me as the fact that upwards of 1,000 continuous miles of British frontier were closed to British trade and enterprise; a frontier, too, that divided countries more diverse as to their physical characters, their natural products, and consequently as to their several wants, than any other two on the face of the globe. I have never ceased to urge, when opportunity offered, both in India and England, the importance of opening up this frontier by a route through Sikkim, believing, as I do, that the trade in tea between India and Thibet will eventually do more to benefit the latter country than, perhaps, any other whatever.

THE AMERICAN WAR AND GERMAN COMMERCE.

The present unfortunate state of political affairs in America does not yet appear to have had any effect on the transatlantic trade of the Elbe, which, in all respects, still occupies the high position which it has long maintained. Of this good evidence is given in the official returns of arrivals and departures at the neighboring city of Hamburg during the first seven months of this and the two preceding years, from which the following is an abstract:

ARRIVALS.						
<i>Jan. 1 to July 1.</i>	<i>Transatlantic.</i>	<i>European.</i>	<i>Total.</i>	<i>Steamers.</i>	<i>Colliers.</i>	
1859, ...	227 ..	2,466 ..	2,693 ..	622 ..	784	
1860, ...	261 ..	2,720 ..	2,981 ..	667 ..	814	
1861, ...	273 ..	2,821 ..	3,094 ..	641 ..	898	
DEPARTURES.						
					<i>In ballast.</i>	
1859, ...	234 ..	2,445 ..	2,679 ..	624 ..	1,234	
1860, ...	248 ..	2,627 ..	2,875 ..	653 ..	1,093	
1861, ...	241 ..	2,717 ..	2,958 ..	626 ..	1,212	

With regard to the arrivals from America it will be seen that there has this year been an increase over those of both of the other years; but as to the departures, a small falling off, as compared with those of last year, is beginning to be perceptible, though that is not to be wondered at; for, in the present condition of the States, a check has naturally been given to emigration, which could not fail to have some influence on ship-owners, who have been accustomed, to some extent, to rely on what they receive from passengers as a means of enabling them to meet the expenses of the outward voyage.

As far as the local trade of Hamburg is concerned, that, according to the financial returns of this year, as compared with the same period of last, is in all points of view satisfactory.—*Altona (August 3) Correspondence of the London Post.*

DECLINE OF SALMON.

The Fishery Commissioners of Ireland have reported to the Lord-Lieutenant that the salmon fisheries in 1860 were not so productive as in the preceding year, though the money value of the salmon captured probably exceeded that of many years past, and that there is reason to fear that under the temptation of the high price which this fish has attained in the market there has been a degree of over-capture which must eventually prove detrimental to the general interests. The number of fixed engines in the tideways, &c., on the seacoast has increased within seven years from 270 to 386. This mode of capture has now extended to an abuse, but, as it has been legalized by the legislature, all that the commissioners can do is to adopt as short an open season as the circumstances of each district or river require, and to enforce a strict observance of the close season. Much damage is done at milldams and factories by the salmon being tempted into the rapid current and killed by the wheels, but it is thought that means may be adopted for inducing the fish to follow the course of the river without injuring the working power of the wheel. The erection of fish-passes over weirs is found of very great service in affording the fish a free passage up to the spawning beds. The weirs are very injurious to navigation.—*London Times, August, 1861.*

CURIOUS JAPANESE DOCUMENTS.

The Consul at Hakodadi, Japan, has forwarded to the State Department the original Japanese vouchers, with the translations, for the expenditures made on behalf of the Consulate. They are very voluminous, considering the small amount of matter contained in them. One is a bill presented by Mr. Goo-so-go-yo-yau-kas-ke—whoever he may be—of Chig-gah-si-ma, Hakodadi, for sixty-two bundles of charcoal and two hundred and twenty sticks of firewood, furnished to sailors. The aggregate cost thereof, in Japanese currency, reaches the portentous figure of 48,550. Reduced to United States currency, the amount is \$12 14. The bill, with signature and seal, fills three pages of Japanese paper.

FRANCE AND AMERICA.

The following statement appears in the *Propriété Industrielle* of the 6th of June :

“ Seriously occupied with the consequences which may result to French commerce, navigation and industry from the hostile disposition manifested by the two fractions of the American Union, the Chamber of Commerce of Havre wrote to the Minister of Agriculture, Commerce and Public Works, on the 4th of May, to testify its fears and to express the hope that measures will be taken by the government to protect the French interests which may be affected. It has just received the following reply from the ministers, to which it hastens to give publicity :

“ *Paris, May 23, 1861.*

“ Gentlemen,—You have done me the honor to communicate with me, on the 4th of this month, respecting the hostilities commenced

between the two fractions (*deux fractions*) of the former American Union, and of the first measures which have been the consequence of it. Finally, you express the wish that efficient steps shall be taken by the imperial government to secure the important interests of French commerce in those regions. As you have supposed, these interests are the object of my whole solicitude. I have placed myself in communication with my two colleagues, the ministers of foreign affairs, of the navy and of the colonies, and such measures have been taken that, in transactions with the United States, French commerce will receive no injury.

“‘Receive, &c.,

E. ROUHER.”

A letter from Paris says: “You are aware that the French government, every year, publishes a large volume of statistics relative to trade and commerce. That of the present year has just appeared, and I shall have occasion hereafter to notice its principal features. For the present I may state that it shows that the actual value of all sorts of merchandise imported into France for consumption, in the year 1860, was 1,897,300,000f.; (£75,892,000;) in 1859 they were 1,640,700,000f.; and in 1858 they were 1,562,800,000f.; whilst the actual value of French articles exported, in 1860, was 2,271,100,000f.; (£90,844,000;) in 1859, 2,266,400,000f.; in 1858, 1,887,300,000f. In these items the precious metals are not included.”

OPENING OF THE SCINDE RAILWAY.

(From the *Kurrachee Herald*.)

On the morning of the 13th May the first public train for passengers and goods ran from either terminus of the line, the crowd of passengers at the Kurrachee terminus being enormous. Since then, great numbers of passengers were being conveyed daily; the quantity of goods delivered by native traders for carriage, tax to the utmost the resources of the railway, one firm alone offering to enter into an arrangement for the conveyance of 140 tons per diem.

Sir BARTLE FRERE, on the 29th April, 1858, turned the first sod of the Scinde Railway, and, notwithstanding engineering and other difficulties, in little more than three years thereafter his successor has declared the line to be open for public traffic. The Scinde Railway is 114 miles in length, and is the first complete railway opened in India, and there appears every prospect of its being the first having its capital account closed, and paying a dividend on the capital expended on its construction.

The commissioner in Scinde has alluded in terms of commendation to the excellence of the arrangements of the administrators of the railway in India, Messrs. NEVILLE, WARREN and JOHN BRUNTON; above all, calling attention to the fact that the workmen employed by the company upon the line, drawn from Scinde, Beloochistan, Bhawalpoor, the Deccan, Cutch, and from the confines of Persia and China, had all so conducted themselves that neither feuds or disturbances had ever reached the ears of the authorities. The most extensive engineering works on the line are two viaducts. The Muller viaduct is composed of WARREN's patent iron girders, of 80 feet span, resting on stone piers, and is 1,860 feet in length. The Bahrin viaduct is built of hard, white, durable stone, found

on the spot, has thirty arches of 45 feet span, and is 1,782 feet long. This viaduct is described to be as fine a piece of masonry as can be seen in any part of the world, and has been executed by native contractors, chiefly Cutchees. The stations on the line are Kurrachee, Landi, Dorbajee, Joongshaie, Jeempeer and Kotree. Kotree, on the Indus, the port of Hyderabad, and the upper terminus of the railway, is vastly increasing in importance, from its steamers and railway, and from the establishment, by Europeans, of extensive saltpetre and other manufactories. Joongshaie, the mid-station of the line, possesses many local advantages, and is about twenty miles from the ancient town of Tatta, on the Indus. This station is evidently destined to be the nucleus of an active and enterprising community; the future town is being laid out, and building sites allotted. The Parsee and other native traders resident at Tatta have proposed to raise funds for a cheap railway or tram-road from thence to Joongshaie, and a considerable local traffic from the latter to Kurrachee has commenced.

Fully to appreciate the importance of the increase in the trade of the port of Kurrachee, it is necessary to call attention to the rapid and steady increase of the trade from the date of the conquest of Scinde, as shown in the following tabular statements, compiled respectively by the commissioner in Scinde and the Chamber of Commerce at Kurrachee. A direct trade is established between Kurrachee and London, Liverpool, Glasgow, Havre, Marseilles, the Mauritius, Calcutta, Bombay and the Persian Gulf.

Table of Imports and Exports of Kurrachee, prepared by the Commissioner in Scinde for the Government of Bombay.

<i>Year.</i>	<i>Imports.</i>		<i>Exports.</i>		<i>Total.</i>
1843-44,.....	£121,150	....	£1,010	....	£122,160
1844-45,.....	217,700	....	9,300	....	227,000
1845-46,.....	312,900	....	40,500	....	353,400
1846-47,.....	293,400	....	49,300	....	342,700
1847-48,.....	287,872	....	154,730	....	442,680
1848-49,.....	344,715	....	107,133	....	451,849
1849-50,.....	419,352	....	114,378	....	533,731
1850-51,.....	425,831	....	196,461	....	622,293
1851-52,.....	489,220	....	244,222	....	733,343
1852-53,.....	535,690	....	376,337	....	800,000
1853-54,.....	508,793	....	376,310	....	885,103
1854-55,.....	575,196	....	346,893	....	922,089
1855-56,.....	629,813	....	604,440	....	1,234,253
1856-57,.....	685,665	....	734,522	....	1,420,187
1857-58,.....	1,081,100	....	1,078,100	....	2,159,200
1858-59,.....	1,540,600	....	1,044,200	....	2,584,800

SCOTTISH COMMERCE.

The advices from Dundee are more cheering, the home demand for linens having improved, and most manufacturers being now fully employed. Some mills which were on short time are now again in full work. Flax is firm, and a considerable business has been done in St. Petersburg and Riga, at higher rates. The shipments of jute from Calcutta, from the 1st of October to the end of May, were 273,100 bales, against 224,400 bales in the corresponding period of 1859-60. The demand for yarns is well maintained, and, altogether, affairs at Dundee

have been looking up of late. There has been rather more inquiry for wools during the past week, but quotations have exhibited little if any change, buyers still continuing cautious in their purchases. The last official returns, published with regard to the Scotch banks of issue, show an average weekly circulation of £4,284,782, being a decrease of £249,027, as compared with the previous month, and an excess of £1,535,511 over the fixed issue. The amount of bullion held by the banks was £2,591,610, being a decrease of £77,141, as compared with the preceding return. The Glasgow Gas Light and City and Suburban Gas Companies have just declared dividends, at the rate of 10 per cent. per annum. The movement of goods of all kinds, foreign and coastwise, at the port of Glasgow, amounted, in the last twelve months, to 1,366,327 tons, as compared with 1,192,475 tons in the preceding year, showing the gratifying increase of 173,852 tons, and that, too, while commercial affairs have in other quarters exhibited considerable depression.—*Times*.

TRADE WITH TURKEY.

A despatch from Her Majesty's Consul at Gallipoli to the Lords of the Committee of the Board of Trade, of which a copy has been transmitted to LORD'S, announces that a weekly line of steam communication, under the English flag, has been commenced between Constantinople and Tenedos, calling at Rodosti, Gallipoli, and the intermediate villages on the coast of the Dardanelles, returning to Constantinople by the same route, completing the whole voyage in a week. Independently of the facilities given by this new enterprise to local commerce, it has operated in augmenting the export trade from Roumelia to the United Kingdom. In the absence of good roads in the interior, the development of the coasting trade by means of steamers, it is observed, is greatly conducive to the interests of British commerce; to importers of produce by enabling them to lay down the articles in which they trade at a cheaper rate in England; to exporters of manufactures, by facilitating the distribution, and thus augmenting the demand for their goods; to shippers, by facilitating both the export and import trade of Great Britain, and thus creating a greater demand for freights to and from the Turkish coast.

TRADE AND PRODUCTS OF SIAM.

A series of reports received from our Consuls on the trade of foreign countries has been issued by the Board of Trade, with a promise that they shall in future be published more speedily; this may easily be, for the present series relates to the year 1858. The longest report is from Sir R. SCHOMBURG, British Consul at Siam. He states that a rapid development of the commercial resources of Siam has taken place since our treaty, negotiated in 1855, came into operation; but the Siamese government do not as yet appreciate the great advantages of a free commerce, and fear it may be favorable to foreigners and disadvantageous to themselves. Their principal export is of rice to China, and next sugar, of which ten times the present quantity might be produced if there were sufficient labor to be had; but the extraction of the juice of the cane

and its manufacture into sugar are carried on without any of the modern improvements for acquiring the largest possible quantity from the cane and a superior quality of sugar. The alluvial districts might produce as fine cotton as the United States, but there is a scarcity of laborers, and it is bulky for transport in canoes down the river. Her Majesty's government included among the presents forwarded to the sovereigns of Siam, a hydraulic press to compress cotton into bales. Coffee grows luxuriantly, and is of a superior description; it might be cultivated to an unlimited extent. A number of woods, the produce of the forests of Siam, may become of importance. The teak wood is considered the strongest and most durable timber of India, or perhaps of the world, only the green-heart of Guiana vying with it; but it had become scarce, and the supply had almost ceased. The takieng might perhaps rival it in size and quality, if examined more closely. Sir R. SCHOMBURG saw, at the building sheds of the first king, a log of this wood, which was being prepared for the construction of a war-canoe, measuring 135 feet, perfectly sound and without a flaw. It possesses the property of being easily bent by artificial means. There are many ornamental woods, the color and suitability to receive a high polish of which would render them valuable articles of export. A beautiful dye, of a brilliant color, is prepared from the heart of the jack-tree, which might also become of importance. Sir R. SCHOMBURG had seen silk cloth manufactured in Siam, of a green color, with much more lustre than sap green; this green dye, he was told, was extracted from a vegetable substance, procured in the forests of the interior. There is said to be a varnish obtained by incision from a tree, probably the theet, on which neither the sun nor rain has influence, and hence it is employed for securing the gilding of idols; it might be advantageously employed for gilding monuments and ornaments which are exposed to the influence of the atmosphere. The balsamic resins of Siam also deserve attention. The betel nut is extensively cultivated, to be used as a stimulant; and so is hemp, for the sake of its intoxicating and narcotic qualities, it being used in the preparation of "guncha," which has the same effects as opium; but a considerable quantity of opium, of inferior quality, is produced in the tributary provinces of Siam, on the China border. Elephants abound in the interior of Siam. The hides are sent to China, where, having undergone a process similar to that of gelatine, they are considered a delicacy. The horns of the rhinoceros are said to possess medicinal virtues. The Chinese likewise attach fanciful virtues, medicinal and invigorating, to the bones of tigers and crocodiles, and the hairy-covered young horns of the deer.

TRADE WITH FRANCE UNDER THE NEW TREATY.

The railway companies appear to be endeavoring to provide adequate accommodation for the commerce arising out of the Anglo-French treaty. Already the South-Eastern Company and their allies, the administrators of the Chemin de Fer du Nord of France, have made arrangements for an expansion of their system of through traffic by passenger-train and *grande vitesse* organized since the treaty. Further facilities are about to be introduced, which will initiate almost a new era in the transport of parcels and merchandise between the two countries. The through rates

have been reduced and simplified. They show the charge either in kilogrammes or pounds, and include all the numerous imposts that, in the absence of such a system, have hitherto been found especially vexatious. For all weights over 200 lbs., there will be a uniform rate per 20 lbs., without any limit to the weight of consignments. One item may be quoted from the scale as illustrating the cheapness at which commodities may be conveyed between the two capitals, namely : for an ordinary parcel of 2 lbs., 1s. 4d., all charges included where no duty or entry. The French customs authorities have consented to permit the landing or shipping of the goods immediately on the arrival of the boat or train, without any detention at the port, the examination and other custom-house formalities being performed in Paris. This concession is the more important, as the boats must necessarily perform the voyage at night, so as to save time and allow until the afternoon of each day for the despatch of parcels from either metropolis, and it obviates the necessity for the detention which would otherwise arise to the traffic in awaiting customs' hours at the port. It may be hoped that the English customs will follow the example and extend a similar permission, which they have long since given as regards registered baggage, and in a modified form for small parcels, and thus enable the railways to afford the public still greater rapidity of transit, the most important element in continental traffic. As it is, consignments delivered at London-bridge station in the afternoon will reach their destination in Paris on the following day, and, *vice versa*, thus completing the transport in twenty-four hours. The new arrangement has taken effect.

PACIFIC MEXICAN COAST TRADE.

Announcement is made in the San Francisco papers that the steamship PANAMA would leave that port, May 1st, for San Blas, Mazatlan and Guaymas, touching at Cape St. Lucas. It is expected she will afterwards ply regularly between those ports, carrying specie, freight and passengers, and connecting regularly once a month with the Pacific Mail Company's steamers at Manzanillo or Acapulco. This arrangement will prove of immense advantage to the present and future trade of San Francisco with Mexico, and will also be of great service to the foreign merchants established there, as the want of a regular mail and specie carrying service has long been seriously felt. The *Alta* says :

"We hope every encouragement will be extended to this enterprise by our merchants engaged in the Mexican trade ; and we know, that as soon as the steamer has made a few monthly trips, in accordance with the programme, such confidence will be felt in the arrangement as will not only insure the liberal patronage of the Mexican government and people, but will undoubtedly prove this new steamship line a most profitable one to the enterprising proprietors."

FRENCH TREATY WITH TURKEY.

The commercial treaty lately concluded between the French government and the Porte is to be valid for 28 years, with power to the con-

tracting parties to propose modifications at the end of 14 and 21 years. The existing customs' tariff is to endure for seven years only from the 1st of October next. This treaty confirms all the rights, privileges and immunities previously accorded to France. Foreign merchandise destined for Servia, Moldavia and Wallachia, is to pay customs duties only on entering the Principalities, and French houses exporting the produce of the Principalities will pay the customs' duties into the hands of the Moldo-Wallachian or Servian administration. No duty is to be paid on merchandise passing through the Straits, even should it be temporarily landed on the Turkish territory. The duty charged on merchandise imported into Turkey for the purpose of being sent to other countries, has been reduced to 2 per cent., and will be further lowered to 1 per cent. in eight years. French subjects are not permitted to import tobacco and salt into Turkey except on payment of the same duties as the Turks pay. Tobacco and salt, the produce of Turkey, are not to be subject to the payment of duty on being exported. French subjects are not permitted to import firearms, gunpowder or warlike stores, but fowling-pieces, pistols and arms for ornament are not included in the prohibition.

FRENCH WINES.

The quantities entered for home consumption for the first five months of this year, compared with the corresponding period of the two previous years, are as follows: 1859, 266,965 gallons; 1860, 535,995 gallons; 1861, 1,129,775 gallons; showing an increase over 1859 of 862,810 gallons, or 18,756 hhds.; and over 1860, of 593,780 gallons, or 12,908 hhds. Such an increase is wholly unprecedented, thanks to the commercial treaty and the reduction of the duty. The greatly reduced prices have, no doubt, greatly contributed to this result, and will go far to verify the predictions of the Chancellor of the Exchequer.

THE PERSIAN AMBASSADOR ON COTTON FROM PERSIAN ARABIA.

The following is a translation of a letter addressed to the President of the Royal Asiatic Society, by MIRZA JAFER KHAN, ambassador from His Majesty the Shah of Persia to the Court of St. James:

"From the circumstance that this well-wisher passed the springtime of his life in this island, and received at that time numerous marks of friendship and kindness, from great and small, among the natives of this country, he has, therefore, always been animated with a desire for the welfare and advantage of the British nation. At this present moment, by reason of the events occurring in the United States of America, a great deal of anxiety and discussion is to be observed as prevailing among the owners of cotton mills. Some have recommended Zanguebar or Australia—others, again, India and various places—as most fit for the cultivation of that most useful product; but this well-wisher takes the present opportunity to demonstrate his friendly feelings, by suggesting to the president of the Royal Asiatic Society that the province of Khuristan, now known by the name of Persia Arabia, is, from the circumstances of its vicinity to the sea, the fertility of its soil, the number of rivers—as, for instance, the Kerkha, the Karan, (Karus,) the Jarrahi,

Behbahan—better adapted than the aforementioned countries—that is to say, in fact, the very best place for the cultivation of cotton. From the foot of the mountain ranges of Luristan, Arabistan and Behbahan, as far as the shores of the Persian Gulf and of the Shattee-¹ Arab, extends a vast country, the greater part of which is capable of being cultivated so as to produce any required quantity of cotton, sugar, opium or indigo. Even as things are at present, and in spite of the want of capital and of special knowledge among the people of those parts, a portion of the lands in question are cultivated near Shuster, Dizful and Fellahigga. It is related by the Arabian historians that, at the time when the dyke of the Karun, near Aliwak, formed a source of prosperity to the environs, it was customary to place on the dinner table of the Caliph at Bagdad, every evening, a tray of bread, with a thousand pieces of gold, as derived from the revenue of that district. For this reason the district received the appellation of ‘Selletu-¹ Khubz,’ i. e., ‘bread-basket.’ Besides this, the ancient name of that region in the old Persian language is Khuzistan, and ‘Khuz’ means ‘sugar.’ By reason of its producing immense quantities of that product, the country became known as Khuzistan, i. e., ‘Sugarland,’ and it is evident that the manufacturers of England may easily and speedily obtain from those regions any desired quantity of good and beautiful cotton. Many English travellers have visited those parts, and viewed them from one extremity to another, and have become well acquainted with its circumstances. From them, too, the truth may be learned. In short, should the ideas above set forth meet your approbation, the best thing to do would be to transmit a notice to the cotton-manufacturing firms, in order that they may appoint an agent with whom the necessary stipulations on both sides may be discussed, and a definitive understanding come to in the matter.”

SUGAR AND COFFEE TRADE.

We are indebted to the monthly circular of Mr. H. E. MÖRING, New-York, for the annexed particulars :

Imports of Foreign and Domestic Sugars, from January 1st to August 31st, and from September 1st to December 31st.

Months.	TOTAL OF THE FOUR PORTS.							
	N. York.	Bost'n.	Phila.,	Balt.,	1858.	1859.	1860.	1861.
January,..... tons,	7,160	2,042	882	298	11,708	13,141	8,888	9,577
February,..... "	18,425	4,244	1,391	1,114	18,493	20,247	18,497	20,174
March,..... "	20,241	4,106	3,467	8,619	82,594	88,277	81,167	41,488
April,..... "	29,918	3,841	8,462	2,744	87,239	48,632	47,727	39,457
May,..... "	43,074	5,976	5,439	1,168	86,083	42,961	52,031	55,652
June,..... "	23,486	2,096	2,520	870	86,661	43,409	45,661	28,922
July,..... "	16,252	2,538	826	403	29,859	82,646	52,262	23,819
August,..... "	12,250	1,844	1,258	245	82,545	18,820	40,282	15,127
Total in 8 months,..... "	175,748	25,992	18,775	10,456	235,487	258,188	296,410	230,961
September,..... "	.....	.....	.....	.....	15,711	9,642	27,915	.....
October,..... "	.....	.....	.....	.....	10,903	7,586	19,149	.....
November,..... "	.....	.....	.....	.....	8,011	8,076	12,110	.....
December,..... "	.....	.....	.....	.....	11,002	11,742	8,879	.....
Total in 12 months,..... "	.....	.....	.....	.....	261,064	295,429	364,468	.....

Stock of Sugar at the Four Principal Ports of the United States of America, on the 1st September, 1861.

Stock in	TOTAL TONS.			
	1858.	1859.	1860.	1861.
New-York,.....	32,248	56,291	78,055	44,900
Boston,.....	6,755	9,187	14,541	11,451
Philadelphia,.....	4,449	7,491	5,458	1,880
Baltimore,.....	8,297	5,870	11,052	3,326
Total, 1st September,.....	48,749	78,839	109,106	63,557
“ 1st August,.....	27,983	86,907	95,050	62,076
Decrease,.....	.....	8,618	.....	13,519
Increase,.....	18,766	.....	14,056	.....

Imports, Stocks and Distribution of Sugar in the Four Principal Ports of the United States.

Imports up to 31st of August.	1858.	1859.	1860.	1861.	Average.
New-York,..... tons,	165,659	182,247	204,836	175,748	182,384
Boston,..... “	28,351	28,013	38,458	25,969	30,201
Philadelphia,..... “	21,897	23,140	24,710	18,775	23,580
Baltimore,..... “	19,585	18,784	26,356	10,456	19,770
Total,..... “	235,487	252,188	294,410	230,961	255,285
Stock, January 1st,..... “	18,108	15,838	24,140	56,894	23,498
Total Supply in eight months,..... “	253,540	278,466	320,550	287,855	289,736
Deduct Stock, September 1st,..... “	48,749	78,289	109,106	63,557	74,425
Distribution in eight months,..... “	204,791	195,177	211,444	223,798	209,308
“ Monthly Average,..... “	25,549	24,897	26,431	27,975	26,168

Stocks, Receipts and Distribution of Sugar in the Six Principal Markets of Europe, up to 1st August.

Stock, 1st August.	1858.	1859.	1860.	1861.	Average.
Holland,..... tons,	15,250	10,000	5,500	19,250	12,500
Antwerp,..... “	1,600	2,400	600	2,950	1,883
Hamburg,..... “	1,500	3,500	4,500	6,500	4,000
Trieste,..... “	8,150	6,150	2,450	2,050	3,450
Havre,..... “	1,000	7,100	6,150	6,600	5,212
Great Britain,..... “	100,060	80,600	118,800	129,300	107,062
Total, August 1st,..... “	122,560	109,750	187,500	166,650	134,112
“ July 1st,..... “	127,400	118,150	155,950	149,950	136,611

Receipts and Deliveries of Sugar in Six European Markets.

	1860.	1861.
Total Stock, January 1st,..... tons,	125,250	90,850
“ Receipts up to August 1st,..... “	879,150	460,500
Total Supply for seven months,..... “	504,400	551,850
Deduct Stock, August 1st,..... “	187,500	166,650
Distribution in seven months,..... “	366,900	384,700
“ in July,..... “	72,800	71,550
Receipts “..... “	54,850	83,250

IMPORTS OF COFFEE, FOUR YEARS.

	Year	Year	Year	8 mo.,
	1858.	1859.	1860.	1861.
New-York,..... tons,	41,501	41,680	32,648	37,120
Boston,..... “	8,839	6,885	4,147	2,929
Philadelphia,..... “	10,810	12,907	6,609	6,065
Baltimore,..... “	14,498	16,887	12,661	8,236
New-Orleans,..... “	23,874	26,061	20,442	9,620
Total,..... “	98,522	104,370	76,517	63,970

Stock of Coffee at the Five Principal Ports of the United States of America, on the 1st of September, 1861.

Stock in	1858.	1859.	1860.	1861.
New-York,..... tons,	4,755	6,888	1,982	10,850
Boston,..... "	926	1,587	218	1,878
Philadelphia,..... "	774	812	674	526
Baltimore,..... "	1,070	1,956	1,072	1,048
New-Orleans,..... "	2,500	714	429	86
Total, 1st September,..... "	10,025	11,487	4,870	18,868
" 1st August,..... "	6,051	11,545	8,068	14,211
Decrease,..... "		88		828
Increase,..... "	3,974		1,887	

Total on hand, 1st September, 1861.

Brazil,..... bags,	160 lbs.,	156,068
St. Domingo,..... "	180 "	9,776
Laguayra,..... "	110 "	6,828
Maracaibo,..... "	120 "	12,748
Bombay,..... "	150 "	600
Costa Rica,..... "	120 "	817
Jamaica,..... "	150 "	
Ceylon,..... bags and mats,		11,548
Java,..... bags,	180 "	4,257
Singapore,..... mats,	60 "	24,792

Imports, Stocks and Distribution of Coffee in the Five Principal Ports of the United States.

Imports up to 31st of August.	1858.	1859.	1860.	1861.	Average.
New-York,..... tons,	27,908	30,901	20,082	87,120	29,002
Boston,..... "	4,476	5,238	3,219	9,929	8,978
Philadelphia,..... "	6,620	9,188	4,879	6,065	6,549
Baltimore,..... "	8,714	10,787	7,215	8,286	8,725
New-Orleans,..... "	12,284	16,984	11,282	9,620	12,580
Total,..... "	59,947	73,043	46,177	68,970	60,764
Stock, January 1st,..... "	22,740	8,910	18,595	9,149	18,598
Total Supply in eight months,..... "	82,687	81,958	59,772	78,119	74,882
Deduct Stock, September 1st,..... "	10,025	11,487	4,870	18,868	9,984
Distribution in eight months,..... "	72,662	70,496	55,402	59,286	64,448
" Monthly Average,..... "	9,083	8,812	6,925	7,405	8,056

Stocks, Receipts and Distribution of Coffee in the Six Principal Markets of Europe, up to the 1st August.

Stock, 1st August.	1858.	1859.	1860.	1861.	Average.
Holland,..... tons,	46,400	40,850	31,400	23,050	35,800
Antwerp,..... "	4,800	2,750	2,700	8,900	3,887
Hamburg,..... "	10,500	6,500	6,500	11,000	8,625
Trieste,..... "	3,600	2,050	2,500	4,050	3,050
Havre,..... "	8,900	4,750	6,150	8,600	5,850
Great Britain,..... "	10,700	7,800	7,750	7,100	8,387
Total, August 1st,..... "	79,400	64,200	57,000	57,600	64,549
" July 1st,..... "	81,600	59,150	56,500	52,550	62,449

Receipts and Deliveries of Coffee in Six Markets of Europe.

	1860.	1861.
Total Stock, January 1st,..... tons,	52,250	45,100
" Receipts up to August 1st,..... "	111,800	124,850
Total Supply for seven months,..... "	164,050	169,950
Deduct Stock, August 1st,..... "	57,000	57,600
Distribution in seven months,..... "	107,050	112,350
" in July,..... "	13,250	13,650
Receipts "..... "	13,750	17,700

JOURNAL OF INSURANCE.

I. STATISTICS OF FIRE INSURANCE IN NEW-YORK. II. LONDON FIRE INSURANCE. III. FIRE-PROOF WAREHOUSES.

STATISTICS OF FIRE INSURANCE IN NEW-YORK.

Number of fires in New-York, 1854—1860. Amount insured on property damaged and lost by fire. Amount paid for loss and damage by fire.

	<i>No. of Fires.</i>		<i>Amount insured.</i>		<i>Amount paid for loss and damage.</i>
1855.....	344	....	\$ 3,140,930	....	\$ 941,147
1856.....	315	....	4,011,843	....	1,267,812
1857.....	336	....	4,056,092	....	782,014
1858.....	302	....	2,948,485	....	632,103
1859.....	310	....	2,643,795	....	1,100,290
1860.....	397	....	5,416,700	....	1,390,894
	<u>2,004</u>		<u>\$ 22,217,845</u>		<u>\$ 6,064,260</u>
Average of six years,.	334	....	3,702,974	....	1,010,710

With the exception of the year 1860, during which the number of fires was excessive, the return shows the normal regularity which the result of similar statistics in the Old World naturally led us to expect. The average number of fires per annum, as shown in the above table, is 334, from which 1860 differs by an excess of 63. The average in the years 1855—1859 is 321, and the greatest variation in any one year is reduced from over 15 per cent. to less than 7 per cent.

Column II. exhibits the amount reported as insured on the property damaged or destroyed by the fires. Taking the years from June, 1854, to May, 1860, as a basis, the amount *paid* is to the amount *insured* on the property as 27.96 : 100.

There are many interesting deductions which might be made from this table, though until much more detailed records are preserved, it will be impossible to reduce fire insurance to a mathematical basis similar to that which is now the groundwork of life insurance. The Fire Marshal is doing much, but his labors are not so valuable as they would be were the companies to publish a detailed report of the risks and losses of their respective business.

A rough estimate may be made of the amount of property insured in this city by assuming the amount of premiums on risks "up town" and "down town" as the total premium received for insurance in New-York. This was stated in Mr. BIRNEY's "Assessment Report for account of Fire Patrol," as follows :

1859.....	\$ 2,196,367
1860.....	2,142,500

If we assume the average rate per cent. of all the companies and for all hazards to be 40 cents, then the total amount of property insured in this will be—

In 1859.....	\$ 549,091,750
In 1860.....	535,625,000

The assumption here is necessarily wide of the truth, because the two districts do not embrace all the property insured in the city, and the supposed rate per cent. is quite as likely to be in error as is the valuation of the property. On the basis of these figures the amount paid for loss is to the total amount insured in the city as 2003836 : 100.

It need not be explained that the more numerous the risks the less is the hazard. If all the property in the world were insured in one office, and if fire insurance were founded on even as correct statistics as life insurance, there would be but little chance of pecuniary loss, as the aggregate premiums would be equal to the aggregate loss. The only reason for the rejection of what are denominated special hazards is the difficulty of obtaining a sufficient number; and an office which taking but a few might be unfortunate, would be perfectly safe in assuming a large number. The smallness of loss compared with the amount at risk, as shown by the preceding tables, does not lead men of comparatively small capital to the conclusion that they might safely insure themselves because they feel that what might be a small loss to a company would be a serious one to them.

Suppose A. and B. engage in a game of chance, and commence each with a capital of \$100,000. If they bet equal but small amounts, the game is as even as such a game can be. But if we suppose that A. has a capital of \$100,000, when B. has but \$1,000, it will be obvious on a moment's thought that it is impossible for them to play an even game. Let the stakes be for \$500 each. If A. wins, he increases his capital but by one-half of one per cent., but B.'s loss is fifty per cent. of all he has.

In another view it will be seen to be impossible for any game of chance to be even. If two persons, starting each with equal amounts, bet all they have, the winner doubles his capital, but the loser loses *everything*, and there is no manner of proportion between *all* and *nothing*. That only should be put at risk the loss of which would not be ruinous, or better still, not inconvenient. This last is what the payers of the two millions per annum to the insurance companies of this city do. They stake a small premium against the security of their property. If no fire occurs, they lose the premium; if a fire do occur, they win the amount for which they are insured.

The reason why the companies can afford to give such odds is, that they are—if I may use the term—betting with a sufficiently large number to get an average. It is an obvious conclusion from this that the larger the business of a company is, and the more extended the field in which it operates, the greater will be the security which it offers. A large conflagration in this city might be ruinous to a company which had confined its business, or a large portion of its business, to the district in which the fire occurred; while another company, which had taken a larger field, might lose an equal amount with no damaging effect to its security and prosperity.

The amount of insurable property in the world not being unlimited, it follows in theory that the fewer companies there are, the lower might be the premiums. And on the contrary, that the more companies there are, the higher the premium would have to be; because, whatever the description of goods, it would be specially hazardous for any company to take but *one* risk. Almost no premium would be equitable in that case, but the same property might be insured for a trifle if the company, instead of having but *one*, had a large number.

In this city, however, the rule seems to be inverted; the more companies we have the more the rates are reduced. It is understood on all hands that the present rates are much too low, and it is probable that they will not be raised to a paying standard till our dividends, instead of being reduced, are annihilated.

J. V. Y.

LONDON FIRE INSURANCE.

The prospectus has been issued of the new insurance company, formed under the auspices of the committee of merchants, brokers and others, appointed at the great meeting at the Mansion-house, London, on the subject of fire risks, on the 25th July. It is to be called the Commercial Union Fire Insurance Company, and the capital is fixed at £2,500,000, in shares of £50 each. The directors are all persons occupying excellent positions in the trade of the port of London, and as the movement in favor of the undertaking was commenced prior to that of the "Mercantile," already started, it would not be fair to complain of its introduction as a mere initiative effort to share the success of that scheme. Looking at the rapid increase of the property of the country requiring to be protected, there is probably an ample field for both; but it may be hoped that no further fresh ones will now be attempted or encouraged, at all events until it shall have been demonstrated that even the increased facilities now provided are inadequate for legitimate wants. The directors of the present company propose to take power to extend their operations to life and marine business, should it hereafter be thought desirable to do so.—*London Times*, August, 1861.

FIRE-PROOF WAREHOUSES.

In a recent debate at Liverpool, Mr. GLADSTONE referred to disastrous fires which had recently occurred, and he suggested that it was worthy of consideration whether or not they had the best possible construction of warehouses. He also called attention to a suggestion, that in constructing new warehouses the buildings should be detached, even if the space between did not exceed a brick's length. It would also be well to consider the manner in which goods were stored in warehouses, especially with reference to the storage of inflammable articles with goods which were not so. Another underwriter was of opinion that there was great risk of fire from the dangerous trades, sail-makers, ship-chandlers and others, which were allowed to be carried on in warehouses. Saltpetre had been stored there, but it was in the vaults underneath the warehouses, and accessible from the street, and it was stored there with the approval of the associated insurance offices in London. In respect to the dock warehouses, it was said the iron columns were all filled up with concrete, so that, in the event of a fire, if the iron were to run like molten lead, the building would remain precisely as firm as before. There was no wood used in the building, either, except in the tea warehouse, and, as the whole building was arched, there was very little risk of combustible materials passing through from one floor to another, and so causing fire. The committee had lately been considering the question of having a steam fire-engine as used in London and New-York, and from the evidence which they had collected it was believed it would be useful in Liverpool.