

Graphic Aids in School Administration

Article Three: Establishing Routine Through Graphs

E. L. Bowman, Director of Vocational Education, Erie Pa.

Routine is the customary or regular course of business or official duties; any regular course of action or procedure adhered to through force of habit (*Webster*; detailed method of procedure regularly followed (*Standard*; the regular habit or practice of business, official duties regularly pursued (*Lewis*). In these definitions there is the constant element of regularity or habitual performance. This is the logical sequence to the second principle enunciated by Surgeon Bell. Our problem is how to establish this regular performance through graphic methods and visual appeal.

Establishing routine is one of the most important duties of an executive. If no form of routine is established, if there is no habitual way of doing the work in the various units of the business, there is confusion, duplication of effort, waste of energy, uncertainty, lack of teamwork, chaos. One employee may be talking and thinking in terms of the metric system, another in the English measure; one may be duplicating the performance of another, going over the same ground after him, because there is no clearly defined division of duties, or statement of lines of authority and responsibility.

Establishing the right routine is difficult. This does not mean that it is not worth time and thought on the part of the executive. If any routine at all is measurably better than no uniformity of practice, surely it pays to refine practice to a high degree of efficiency. Surely habitual performance organized to the point where it most nearly meets the needs of the business will save more than its cost in the time and energy saved in gathering and transmitting data, in simplified performance of the customary repetitive duties of subordinates, in coordination of all activities and in elimination of waste motions, waste reports, wasted time, wasted money, wasted effort.

There is scarcely a state school system in the country that has not in the past called for unnecessary statistics in the compilation of its annual reports from subordinate districts. Much of the data thus demanded on pain of forfeiture of state subsidy was never used, but was embalmed somewhere in a bulky printed volume. This was never read, but was relegated to the task of holding the door open on windy days. If we assume that the report in question required an average of three hours unnecessary work on the part of each district secretary, there would be wasted in a state of two thousand subordinate districts the equivalent of 750 days of eight hours each, or an aggregate of almost two and one-half years of one clerk's time, in the task of compilation of material never to be used. This condition exists in a lesser measure in certain cities.

Executives, therefore, should be careful to set up only such routine as is necessary. It should not be forgotten that it is just as important to cut off unnecessary practice as to create necessary new channels of activity. Here the straight line is the ideal, as will be discussed later.

In like manner it may be shown that much energy is unproductively consumed in poorly planned routine work. Even such a common job as arranging cards alphabetically may be arranged on a labor saving and time-saving basis. An executive may allow his subordinates to muddle along until they chance upon a good method of procedure, or he may establish the

THE PRINCIPLES OF ORGANIZATION.

- I. A single mind in control, from which the plan of action and the directing authority must emanate.
- II. Subdivision of delegated authority in conformity with the branches of the organization.
- III. The recognition of areas of discretion corresponding to subdivisions of authority, but within the range of loyalty to the end in view or mission.
- IV. The determination of a mission and the promulgation of a general scheme or plan for attainment.
- V. The exercise of a system of inspection.

Quoted by permission, *The Alexander Hamilton Institute*.

one best way and require this method to be followed.

Let us assume for a moment that our executive does not realize the value of establishing the right routine, and hence allows his subordinates to set up their own standards of habitual practice. What, conceivably, results? One stenographer spells fearfully and wonderfully, writes her letters double space with no margins to speak of, and dates the letters 4/3/22. Which does she mean, fourth month and third day or third month and fourth day, March 4 or April 3? Another adheres to dictionary spellings, uses single spaces with wide margins, and writes the date, "March fourth, 1922." Still another has no system at all, makes no carbon for filing, judging that it is not necessary to file a copy of an outgoing letter so long as the incoming message is cared for. Some reports are submitted scrawled in pencil on butcher's paper, while others arrive written in the violet ink on scented notepaper. One worker does his tasks in a way that requires three hours per unit of work, while another has discovered a method of performing the same task in 25 minutes.

As a result of such conditions, most of his executive's time is taken up in guessing what the reports mean, in explaining why A takes seven times as long as B to do a given piece of work, in endeavoring to explain omissions made by the one stenographer, and in trying to piece together from memory just what he said in the Smith-Burris letter of which no carbon was kept. This executive finds he has not time to do creative thinking and constructive work, because his time is spent in untangling the snarls made by his subordinates. He is always tired and worn out from handling petty details which properly should be taken care of by others in accordance with the executive's plan.

Had our administrator made some study of problems akin to the above, following his decisions by publishing them to his subordinates, he could have saved time, energy, and money through establishing standard materials for customary jobs. His workers would go about their tasks with apparent precision, and yet would not be overworked. Remember that teamwork never comes until every player knows precisely what the other players of the team should do and will do in a given situation.

The following is a case in point: The general manager of a large milk company believed that he should handle all the problems of the company, that he should sign all papers and make all decisions. He tried to supervise personally all the work of the company, without establishing customary ways of doing things. He was swamped with detail. The inevitable result was that he had a nervous breakdown. While he was convalescing, he used his enforced leisure to plan a form of routine which would care for the very tasks that had broken him. He expressed that plan in a chart, through which he fixed, impressed and visualized to each employee that employee's responsibility and field for initiative. (Refer again to Surgeon Bell's Five Points.) The result was that others were soon doing the routine work in accordance with the manager's plans, and that sound principle of organization were being carried out. The first effect on the executive was that this gave him time to think out an improved method of manufacture whereby he saved his company five thousand dollars a year.

Edward N. Hurley, former director of the Emergency Fleet Corporation, in *Collier's Weekly* for July 2, 1921, says, "A well organized business tries to prevent buck-passing; it puts responsibility on *individuals*. * * * Our type of human being grows only according to the responsibility placed upon him."

John H. van Deventer, editor of *Industrial Management*, says, "Routine is the backbone of business and energy. It must be perfected before our creative thoughts and the resulting new ideas can be fully capitalized." This ideal should be constantly before the mind of every executive. School administrators especially are often charged with laxness in system and routine.

Granted that we recognize the need and value of establishing right routine; what, then, is the method we must follow in solving this problem?

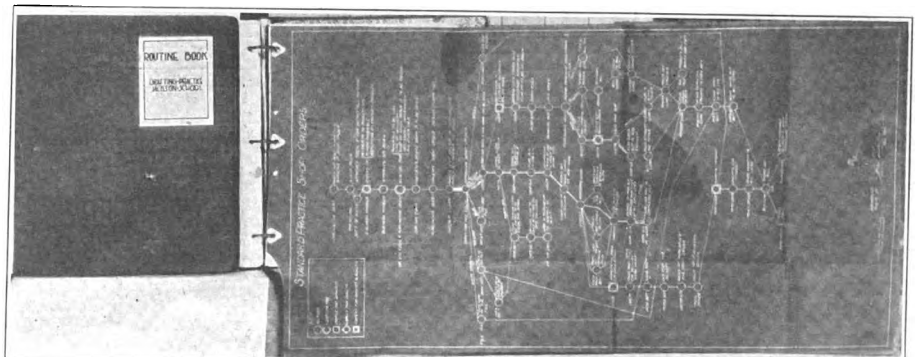


FIG. 1. THE ROUTINE BOOK. Outside cover shows label which designates the place where this particular book belongs. The blueprint is reinforced with cloth rings and folds compactly to 8½ x 11 size. Fig. 5 gives details of this chart.

The task of setting up right routine falls naturally into two divisions: first, that of deciding on right routine; second, that of putting the routine into practice. The first part of the problem may be approached in four stages or steps. First, the executive must think out his solution of the situation, setting up tentative aims and methods. At this stage there are no substitutes for originality and initiative. The executive himself must be firmly grounded on the laws of business organization and must apply these laws to the situation at hand. No amount of outside aid will help here. Solution of the problem will be assisted tremendously, however, by some form of imaging or visualizing of the plan. The executive must present the plan clearly to himself before he can present it to his associates. As an engineer studies a new machine on his drafting board, so the executive must visualize his plan to see if it will work. The man who thinks things through on paper has a vast advantage over the man who tries to carry the process entirely "in his head."

The second stage is concerned with putting the plan through its paces experimentally. The plan is put into complete form, either in writing or in chart, and is inspected to find if it is well designed. Here again it is easier to test an objective plan than a subjective one, a plan all in imagination, that will not stay put.

The third stage is the presentation of the complete inspected plan to the staff, who test it and discuss its possible bearings on the duties of each. Edward A. Filene, the Boston merchant, in his rules for developing a good idea says, "Have your plan criticized in advance by those it will affect, and by anyone else that can be helpful. Our plans are bound to be criticized either before or after they are put into operation. If we have them criticized in advance, the chances are that they will be more favorably received, and even defended as their own ideas, by those upon whom they depend for success."

Fourth, after the plan has been discussed, appraised from every angle, and amended, a draft of the routine as adopted should be drawn up and placed in the hands of every employee it will affect. This draft must be compact so that it may readily be referred to; it must be clear and easily understood to prevent misinterpretations; and it must be comprehensive, cover-

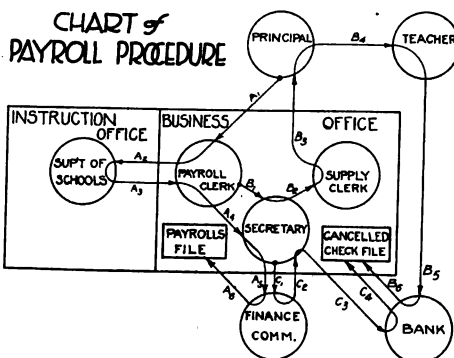


FIG. 2. MAP-CHART OF PAYROLL PROCEDURE. Note that this shows clearly the origin, handling and disposition of each document.

ing all conceivable situations that may arise within its field.

Here again the graph or chart renders a most conspicuous service. By means of such a device we can lay out in map form the administrative systems of the schools in the same way that a transportation system is shown, depicting terminal points and intermediate stations, and the origin, routing and ultimate disposition of routine. By a chart the entire system of routine is kept before the eye at a glance; the interrelation of details is shown; and the relations of individuals with each other become readily apparent.

The easy mental visualization made possible by the chart is one of the strong points in its favor. Further, it makes supervision of functions easy by showing not only detail but the system in its entirety. Again, with a chart it is possible to make definite assignment of duties and to give instructions regarding these duties. Where routine is charted, it is necessary only to designate the position of the worker or the field of responsibility he is to cover to find his duties already explained.

Obviously, where many units of routine are to be employed, the directions to members of the organization become bulky. To protect the directions and keep them together, they should be placed in a loose-leaf binder. Figure 1. shows the outside and inside of a "routine book" as used in an Eastern school system. The chart displayed will be discussed in detail later. It is much better to have a routine book for the guidance of subordinates rather than to depend upon verbal directions, or to expect the new

teachers to know where to draw upon traditional methods of doing things.

The routine book illustrated contains in addition to the charts, circular letters of information on detailed methods of procedure, a complete set of forms as used in this department, of school work, reports of committees in which the instructor is interested, memorandum letters from the director, and a copy of the lesson plan of the teacher for the current week.

It should be remembered that the routine book must be inspected quite as regularly and as carefully as any other part of the equipment of a given subordinate. Without inspection we cannot be sure that the instructor is exercising the proper care in informing himself on requirements.

To keep two or more involved systems of routine in the mind simultaneously for purposes of comparison is well nigh impossible to the average person. To compare the same system through the use of graphic charts is an easy matter. Through such comparisons standardization can be readily effected.

There are two main divisions of charts; charts of procedure, and charts of comparison. The latter were discussed in Article Two of this series, (February, 1922.) The charts of procedure now hold our attention.

Charts of procedure are of four general types; first, map charts, which represent the office in conventionalized map form, with paths of different routine units shown like railroads running from official to official; second, "function, or duty, charts," which specify the functions or duties of each factor in turn; third, "travel-line charts," so-called, representing the order of treatment by different individuals by a line zig-zagging from one column to another; and fourth "progression charts," a modification from the Travel-line type in which the line is made as nearly straight as possible, the inscription showing the individual responsible for the next action together with his duties.

Map charts can be used in plotting routine where there are not too many individuals concerned, nor too complicated action to be taken by each one. In Figure 2. payroll procedure of a large school system, eight individuals or agents are concerned, and three forms or documents. Document A, time report, originates with the principal of the school, (A1) is forwarded to the payroll clerk, who makes the extensions and computations for retirement funds and forwards the rolls to the superintendent for approval of time and personnel. When the payroll clerk receives the approved time sheets, she draws the necessary checks. These she transmits to the secretary, who draws a voucher form covering the total, and submits it with the time sheets to the finance committee, who authorizes the expenditure of money. Thus validated, the supply clerk distributes the checks to the principals, who in turn hand them to the teachers for whom they are drawn. Meanwhile the voucher has been sent to the disbursing bank which honors the checks as they are presented. The chart shows that the time sheets come to rest in the payroll file, while the canceled checks and the voucher are filed in the business office finally, as a record of the transaction. The time sheet travels six times, and is acted upon four times; the checks travel through seven pairs of hands including the maker; while the voucher travels at least four times.

A map chart of routine is thus seen to be little more than a conventionalized plan of the office with respect to a given unit of routine. Its advantage lies in showing how closely a given routine approached the ideal of straight-line travel.

(Continued on Page 135)

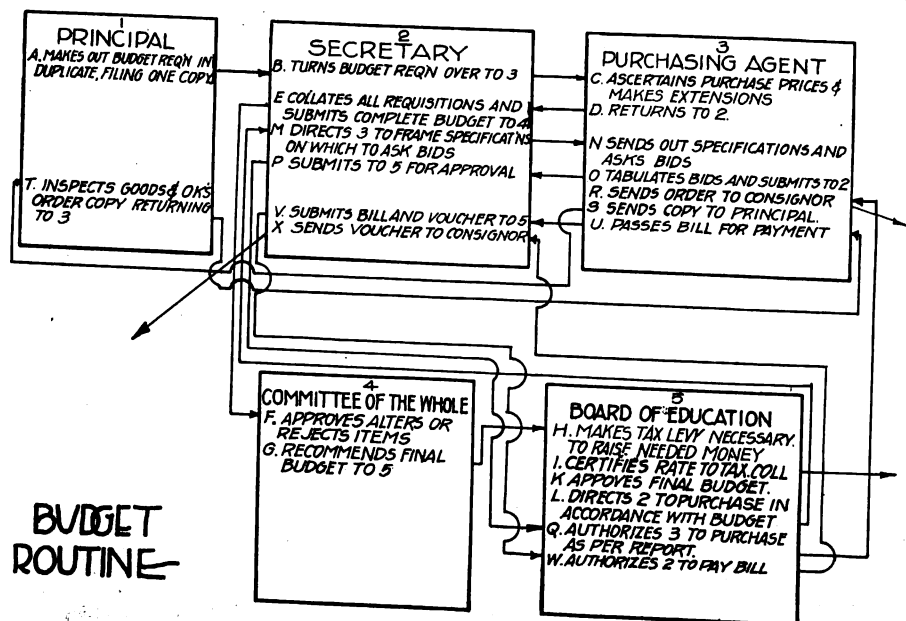
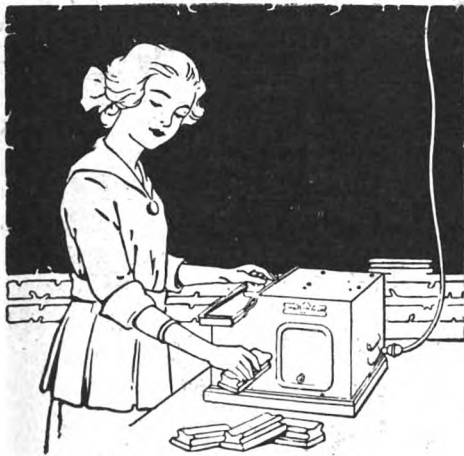


FIG. 3. "DUTY" CHART OF BUDGET PROCEDURE. This type of chart groups duties of each agent together. Compare with Figs. 2, 4 and 5.

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MEASURING THE INTELLIGENCE OF SCHOOL PUPILS.

(Concluded from Page 37)

training due, doubtless, to the failure to discover latent potentialities. There has been some expression on the part of board members of the fear that scientific measurements will lead to a "card-indexing" of the entire school population—that a child, because of his performance, will be denied the opportunities heretofore held up as characteristic of the American school system. But there has been and will be no attempt to tell the child what he is to do, only a desire to help him find that thing he is best-fitted to do. The whole problem resolves itself into the definite effort of being fair to the child.

Intelligence tests are of such a character that they should not be given by persons untrained to the work. Some boards of education have seen fit to employ trained workers and some have even appropriated funds for the training of teachers in that particular field. The writer has come to feel that a test loses its value and becomes a dangerous weapon in the hands of the untrained. Mr. Edison's attempt to classify the intelligence of college students through his questionnaire is an example. There is no reflection on the unequalled contributions to civilization by that leading inventor when it is stated that he did not measure intelligence at all, but rather achieved a measure of general information. We have come to look upon intelligence as adaptability to new situations, not as amount of facts or theories collected and filed.

The instruments we now have enable us to secure in a remarkably short time a measure of intelligence which, under ordinary and customary conditions, would take many months to secure. Some of them have been perfected to a high degree, others will need to be improved.

Any of them, placed in the hands of one who understands what they mean and what to do with the results achieved, will give us far greater service in the public schools than the trial-and-error, hit-or-miss, policy heretofore pursued.

WHAT KIND OF AN ARCHITECT DO YOU WANT TO EMPLOY?

(Concluded from Page 38)

"4. Should any contractor desire more than one set of plans and specifications, he will deposit an additional \$25.00."

It goes without saying that when drawings and specifications are put out for figures, it is the intent of the owner to secure a large number of competitive bids in order that the maximum chance may be had of locating the one willing to undertake the work for the least money. Obviously, this object is thwarted by any such restrictions as those given above. Rather than charge contractors for the privilege of figuring, they should be afforded every possible convenience and encouraged in every way. Those who lose out are put to sufficient expense in estimating and transportation without being saddled with an additional charge. Architects are fully aware of this fact and none who have at heart the interest of their clients, rather than their own mercenary desires, will impose any such restrictions.

On the other hand, a board of education which deliberately employs an architect because of a low fee, may expect him to recoup at their expense, either openly or secretly.

In the interest of good building and clean business administration of building funds, let us hope that the practice of hiring the cheapest rather than the best among competing architects, will soon be distinctly a thing of the past.

GRAPHIC AIDS IN SCHOOL ADMINISTRATION.

(Continued from Page 40)

The function chart of routine is shown in

Figure 3, budget routine. Here the functions of each individual are shown in a separate rectangle, with appropriate designations, here alphabetical, to show the order in which the individuals exercise these functions. Lines with arrow-heads aid in showing more clearly the next step in the process.

Here the process originates with the principal, who forwards to the secretary a list of the budget requirements he thinks necessary for the coming year. In the office of the secretary these requirements are collated, and the purchasing agent determines the money cost of each article. The committee of the whole approves, alters or rejects items until the whole of the requisitions has been handled. The board then levies sufficient tax-rate to provide for the proposed expenditures, and turns the tax duplicate and the certified rate over to the tax-collector for action. Meanwhile it authorizes the expenditure of money according to the approved budget.

Bids on the several items are asked for and tabulated. The board authorizes the secretary, its agent, to purchase in accordance with the bids. When the material is ordered, the principal is furnished with a duplicate copy of the purchase order, which is used as a means of checking quantity and quality of goods delivered. The return of the purchase order copy properly approved by the principal acts as a release for the payment of money to the consignor of the goods, thus completing the process.

This type of chart segregates in one place the functions of a given individual, so that it is possible to study the duties to be discharged by a given factor. It is not so easy to discern deviations from a straight line policy with this type of chart, hence it is not a positive check against waste effort and unnecessary motions.

(Concluded in April)

Graphic Aids in School Administration

E. L. Bowman, New York, N. Y.

Article III: Establishing Routine Through Graphs — Conclusion

A third type of routine chart is the column-map chart, as shown in Figure 4, "routine of lesson plans." This type of chart can be made to show origin and destination of each of the different forms or documents used, the number of times each is handled, and the individuals concerned. Each individual is given a column. If therefore the number of individuals to be considered is very large, the chart will be unwieldy and at the same time more difficult to read. This type gives clear information as to the duties of each individual and shows the person who should next handle the routine.

In the chart shown, the instructor is charged with the responsibility of making out lesson plans for the work of the coming week, delivering a copy to the head-of-department at his school on Friday afternoon. These plans are made in duplicate, the original going to the head of the department, while the carbon copy is kept on the instructor's desk in an appropriate binder as a guide for his teaching during the ensuing week.

The head of the department collects the plans from each of his departments and forwards the whole the same day to the office of the director or supervisor. Here the director's secretary is instructed to place in a binder marked "Current Plans" the plans for the coming week, so that Monday morning the director may study the plans for the week and determine where and when he will inspect, and when and where his help is needed by the instructors.

The plans which have previously occupied the current-plans binder are then transferred to the general files for use in reference and comparison. It is convenient and desirable to be able to collate the plans of instructors for the purpose of determining their relative worths.

If the regular instructor is prevented by illness or otherwise from discharging his duties, he notifies the director, and a substitute teacher is called. The director first reviews with the substitute the work to be done, using the office

copy of the lesson plan. The substitute reports for duty in the school, and at once refers to the instructor's desk copy for continued guidance from period to period and from day to day during the time the regular instructor is absent.

If the substitute acts for more than a day, he is required to make out plans for the continuance of the work. In this he is guided by the lesson plans on file in the instructor's desk, running back to the beginning of the semester or the year. He finds that it is best to record his plans for the next lesson immediately after the class leaves the room, and while the whole matter is still fresh in mind. The substitute instructor files his plans with the head of the department for transmittal to the director precisely as a regular instructor is required to do.

Where the number of individuals concerned is large, and where the routine is complicated, the "Progression type" of chart will be found of most value. Figure 5 shows a portion of one of these charts. Here the order of progress of the unit is indicated by the order in which the symbols occur from top to bottom of the chart. To the left of the operation symbol is found the name of the individual responsible while to the right is a brief statement of his duties at this juncture.

The circle indicates action as described at the left. A letter C surrounding the circle indicates a conference. A diamond indicates inspection for quantity, and a square, inspection for quality. A diamond superposed over a square indicates inspection for both quantity and quality. See Figure 1.

The chart from which Figure 5 is taken is 15 by 24 inches in size, and is arranged to fold so that it may be inserted in the "routine book," as shown in Figure 1. It is signed at the bottom as approved by the heads of the two divisions of the school system, and hence has the force of official action.

This chart is not offered as an expression of an ideal way of handling routine of production

shopwork in Smith-Hughes classes. It is a charting of actual practice in a given school system, reduced to written form for the information of those concerned. Many improvements in practice might be made, and the routine thus simplified.

An examination of the chart will show that the instructor receives two copies of the shop-order, Form 752 (see Figure 6) together with a "tickler-card" which is a postcard printed with a receipt for the shop order, Figure 8. The tickler-card is filled out and signed by the instructor after he has examined his stores. When the tickler-card is received in the office of the director, the shop-order number is posted on the "shop order production record." The card itself is filed behind a guide card indicating the date when the job will be finished, with a signal to indicate the school from which it comes.

In posting the delivery date on the shop-order production record, a map tack is thrust through a small rectangle of paper bearing the number of the shop order. The tack is then fixed firmly in the board. To indicate the shop and school responsible for the work, horizontal lines are ruled across the record. Vertical columns are provided to show the week and day when the job will be finished. The intersection of these two columns, vertical and horizontal, determines the location of the tack. Thus shop order No. 4053, being executed at East high school drafting rooms, is promised for February 8th. The tack is placed at the intersection of the horizontal space assigned to East High drafting rooms with the vertical column for February 8th. It is therefore easy to count the number of orders pending in a given shop, and to tell how many jobs are to be finished on a given day.

If the instructor lacks materials with which to execute the shop order, he calls for the necessary supplies on the requisition form, No. 711H, Figure 7. This passes through the regular purchasing routine, and the supplies finally arrive in the possession of the instructor. Mean-

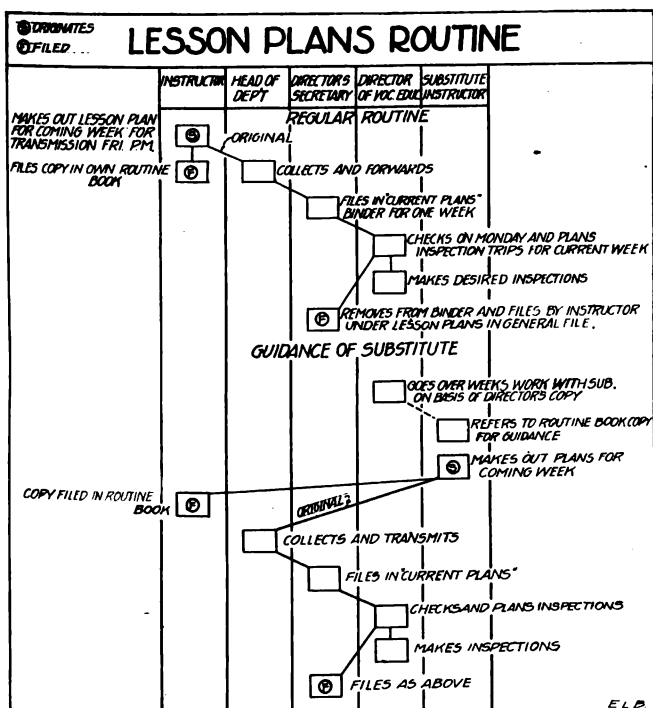


FIG. 4. COLUMN-MAP CHART OF LESSON PLAN PROCEDURE. A clear statement of duties of agents and disposition of documents.

FIG. 6. SHOP ORDER.

This copy is filed with the instructor. Other copies are for reference in the Business Office, in the office of Director of Vocational Education and in the office of Principal of the school where the work is being done. One copy is returned by the instructor as a report when the work is done.

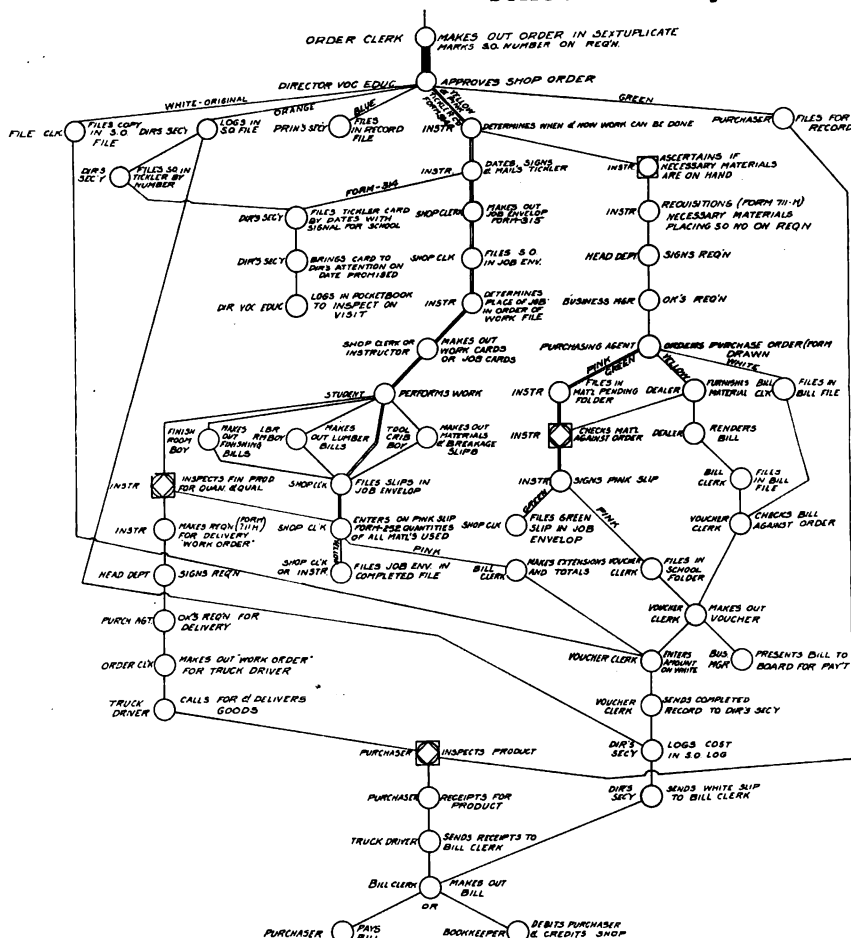


FIG. 5. PROGRESSION LINE CHART OF SHOP ORDER ROUTINE.
A compact statement of the duties of instructors and others in carrying out the "productive work" provision of Smith-Hughes vocational classes.

while, the teacher is planning how and when he will have the work done in the school-shop. He makes out or causes to be made out the job cards, Figure 9, which are the assignment of work to the students.

The shop-clerk is a bookkeeping student who is earning credits by doing the shop bookkeeping, handling real work instead of hypothetical or imaginary transactions. He takes care of much of the routine, such as making out the job envelope, (Figure 10) a container for all the papers in the case. He attends to the proper disposition of all material slips and time cards, filing them in the proper job envelopes until the completion of the job. When the instructor has inspected the finished job, the shop-clerk summarizes the time and materials consumed in production of the article, and posts this data on the copy of the shop-order which is sent to the business office for record.

With a chart like Figure 5, all the essentials of the above can be compressed in a small space, yet be given in sufficient detail to be a complete guide to all concerned in the unit of routine. By such a chart it can be determined who is at fault if the business is not carried on according to orders. If there is a misunderstanding on

any point, the misconception can be cleared up and the business of the department facilitated by reference to the chart.

Other examples of the four forms of routine charts might be given if space permitted. The specimens displayed embody the essentials of each type, and will enable any executive to give directions for making a chart of his routine units. After all, the proof of the pudding is in the eating thereof; and the proof of the worth of graphic charts of routine is in the ease and precision which they make possible in the daily handling of habitual practice.

There is one other form of graphic chart which has been found of great service to busy administrators. I refer to the "work program," or monthly summary of things to be done. It is of great advantage to have on the desk, at the beginning of each day's business, a list of things to be done today. Competent executives, from the President of the United States down, follow this plan. It makes for definiteness and precision in the day's work, and prevents embarrassment and losses from lapses of memory.

In the same way, a monthly plan of work helps to survey the whole month's duties, allows planning to take care of duties well in advance

[illegible]

FIG. 7. REQUISITION FOR MATERIAL TO BE USED IN EXECUTING
A SHOP ORDER.

A C H C o E C J L 62-22 4099
Product PATTERN FOR TOOL POST HOLDER Date Comp. S. O. No.
104-30
I have received the Shop Order described above, and expect to complete
the work by the date marked above.
I have material on hand to complete the Shop Order.
Y I have requisitioned the necessary materials on Special Requisition
No. 128 dated 17 Jan 22
J. B. McGraw Instructor
Signed Academy High School
Date 17 Jan 1922 316 62-22

FIG. 8. TICKLER CARD,
giving to the Vocational Instructor the date of completion
and status of materials for a given shop order.
Printed on a postal card.

of need, and serves as a check on engagements to be met. One form of monthly procedure chart is given in Figure 11. Here are noted the duties and responsibilities to be met by an administrator during a given month.

In preparing this procedure chart, a tracing was first made on tracing cloth. A Vandyke brown negative print was then made. From this negative prints showing blue lines on a white ground were made by the use of ordinary blue-print paper. Twelve prints, representing a year's work, were stored in a folder in the large drawer in the right-hand pedestal of the executive's desk.

The left-hand slide of the desk was removed, and a depression was chiseled out deep enough to allow a piece of plate glass nine by twelve inches to be inserted so that the surface of the glass was flush with the surface of the desk slide. A hole was bored from the center of the depression through the slide, so that a pencil might be inserted to raise the glass when the chart was to be changed.

(Continued on Page 129)

THE SCHOOL DISTRICT OF THE CITY OF BRIGHTON									
NAME		STUDENT NO.		DATE					
Ernest Salmen		53		Jan 1917					
Job # 504		ACADEMY HIGH SCHOOL SHOPS							
MACH NO	DESCRIPTION OF WORK	NO PCS	ORDER NO	S U	ELAPSED TIME	CLOCK	RECORD		
52	Tool Post Holder 1	4693	016	319	11:10	11:10	11:10		
"	"				155	11:10	11:10		
"	"				202	11:10	11:10		
"	"				340	11:10	11:10		
"	"				143	11:10	11:10		
"	"				032	11:10	11:10		
"	"				317	11:10	11:10		
"	"				06	11:10	11:10		
"	"				305	11:10	11:10		
"	"				130	11:10	11:10		
POSTED		TOTAL TIME		21:04					

FIG. 9. JOB CARD, assigning productive work to a given student and containing all necessary information. Time Card on which student records the time consumed on a given job.

Monuments

Catalogs Sent to School Men Upon Request
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Scientific Apparatus for Laboratories

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- 5C General School Supplies.
- P Programs and Invitations.

Diplomas, Certificates, Etc.

- D Diploma Forms and Catalogs.

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Our schools are engaged in building a living monument of greater duration and wider influence.

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Progress
Through
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Chicago, Ill., U. S. A.

CHATS DURING RECESS.

The abolition of corporal punishment is not final. At Columbia, Illinois, boys have caused the school so much trouble that they landed in jail. The judge offered a solution. "Let the school board employ a man teacher with both strength and courage, and arm him with a stout switch. Then give 'Hail Columbia' to all who misbehave!"

"Better rural schools and better roads will stop the tide to the cities," says an editor, more than that, better roads will make for better rural schools, and vice versa.

"The child's job at present is to go to school", says Superintendent Mortenson of Chicago. That is an expressive way to put it. First an education and then the real job of life and living.

Somebody charged Dr. Finegan, the state superintendent of Pennsylvania, with "passing the buck". And then the vigorous doctor demonstrated that he never passed anything educational but grabbed it by the nape of the neck and placed it where it belonged.

Because a high school teacher aged 45 years at Avon, N. Y., married one of her pupils aged 19, some of the students have gone on a strike. Better let the school board do the striking.

GRAPHIC AIDS TO SCHOOL ADMINISTRATION.

(Continued from Page 40)

The left-hand slide of the desk was chosen because it was less easily accessible to visitors, and hence more private. Using the space under

the plate glass did not interfere with the use of the top of the slide for the usual purposes, but did afford a very accessible and safe place to keep the plans for the month. The appearance of the desk top with the slide drawn out for reference is shown in Figure 12.

As duties appeared and engagements for the month were made, they were written in on the sheet in the space reserved for the day in question. A glance at the chart each morning kept the administrator posted on engagements for the day and for the coming days. The value of this to a busy man is beyond calculation. The plan needs but a trial by any executive to convince him of its feasibility and service.

Tool Post Holder

6 Jan 22	DATE PROVIDED	33422	7 Jan 22	4093	504
33422	DATE COMPLETED	DELIVERED	REPORTED R. O.	S. O. NO.	JOB NO.

MATERIAL

☐ On hand

☒ Requisition, No. 178 date 17 Jan 22

No. _____ date _____

No. _____ date _____

TIME

Student labor 2109 hrs. at 04 1.48

Instructor's labor _____ hrs. at _____

Total labor \$ 1.48

FIG. 10. THE JOB ENVELOPE, A CONTAINER FOR ALL DOCUMENTS PERTAINING TO A GIVEN JOB. THESE ARE FILED ACCORDING TO NUMBER IN A TRAY IN THE SHOP OFFICE.

PROCEDURE FOR NOVEMBER, 1921											
WEEKDAYS	5	6	7	8	9	10	11	12	13	14	15
MONDAY	MAIL GRAPHIC AIDS I PRIN VOC EDUC 4**		PRIN ECON BASIS 4**		PRIN APPRENT P 4**		PRIN STATE LAWS 4**		PRIN FEDERAL LAWS 4**		
TUESDAY		1	ELECTION DAY 8		HOLBROOK HAMMERGILL 3**				22	RELATED SUBJECTS QUESTIONS ARE READY TO MAIL	29
WEDNESDAY	7:30 JOTTISH RITE	2		9	NEW KENNINGTON	16			23	NOODWING COM 8**	30
THURSDAY	DR REED INVENTOR		RELATED STUDIES COM 4**		12:30 CONFERENCE EARFIELD		RELATED STUDIES COM 4**		24	25	26
FRIDAY	3	BOARD MEETS 8**	4	DOMESTIC ARTS 4**	5	TRADE ANALYSIS 7**		11	SCHEMLEY HIGH	18	25
SATURDAY	TRAFFIC CLUB 8**		IN-TITUTE 9**	5				12		19	26
SUNDAY		6						13		20	27

FIG. 11. THE AUTHOR'S PROCEDURE CHART FOR NOVEMBER, 1921. SUCH EFFORTS TOWARD PREVISION AID IN PROMPT AND PREPARED MEETING OF ENGAGEMENTS.

ECONOMY Drawing Tables and Sectional Filing Cases

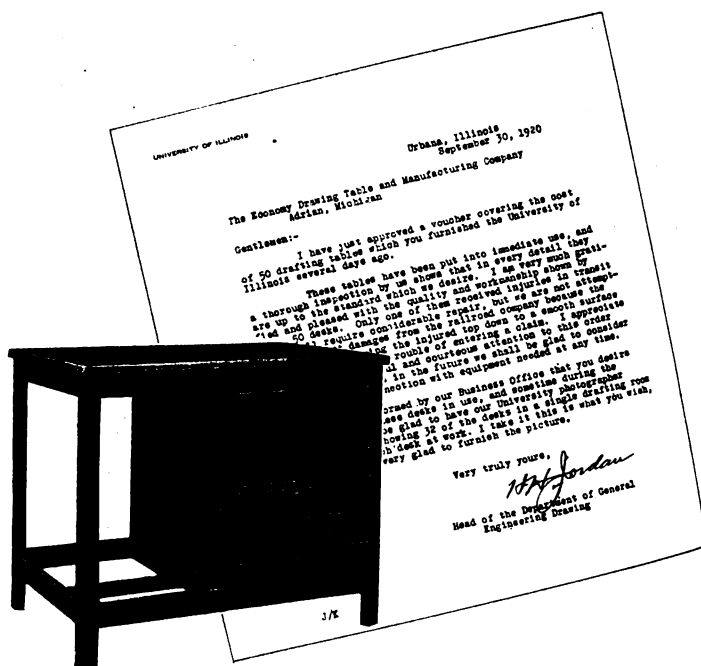
*Read what
a user
says:*

Only one of the many unsolicited testimonials that we are constantly receiving. The first paragraph indicates why we get so many repeat orders—the second paragraph how the repeat orders come in.

We design and manufacture Drawing Tables, Filing Cases and Drafting room furniture.

We are splendidly equipped to turn out "stock" orders as well as "specialties." We give our personal attention to every one of your needs. We have made a study of, and proved the ECONOMIC use of the ECONOMY furniture in the drafting room.

Write Today.



THE ECONOMY DRAWING TABLE & MFG. CO., Adrian Michigan

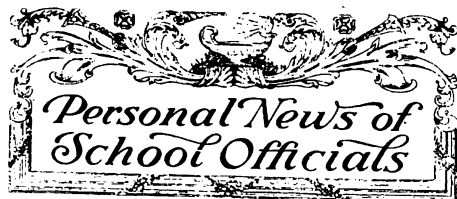
THE MARK
OF QUALITY

REGISTERED
ECONOMY
U.S. PAT. OFFICE

IT PROTECTS
THE WORK

Summary.

Routine is the regular and habitual way of discharging customary duties. Establishing routine is a necessary part of every executive's duties, wherein lies much of the success or failure of the business. A routine book is a desirable means of advising all members of an organization of the required routine. The use of charts of routine saves time, economizes effort, and promotes smoothness of operation of a business. The type of chart to be chosen depends upon the nature of the routine to be depicted. All good charts reduce the effort necessary for comprehension of the routine unit. Charts are useful as means of checking and eliminating useless motions. A monthly procedure chart insures against forgetting important engagements and aids in planning work in advance.



—Mr. Patrick Jones, Superintendent of School Supplies for the New York City board of education, was recently presented with a silver loving cup by the employees of the Bureau of Supplies as a token of congratulation on his reelection to the office by the board of education. The design of the cup is unusually artistic and emphasizes the beauty of the inscription, consisting of the seal of the board of education and the wording:

"Presented to Patrick Jones, superintendent of school supplies, board of education, school district of New York, by his fellow employees, in recognition of his efficiency and as a token of their high regard and friendship—1922."

Mr. Jones entered the service of the board on November 1, 1893, and on August 25, 1904, was

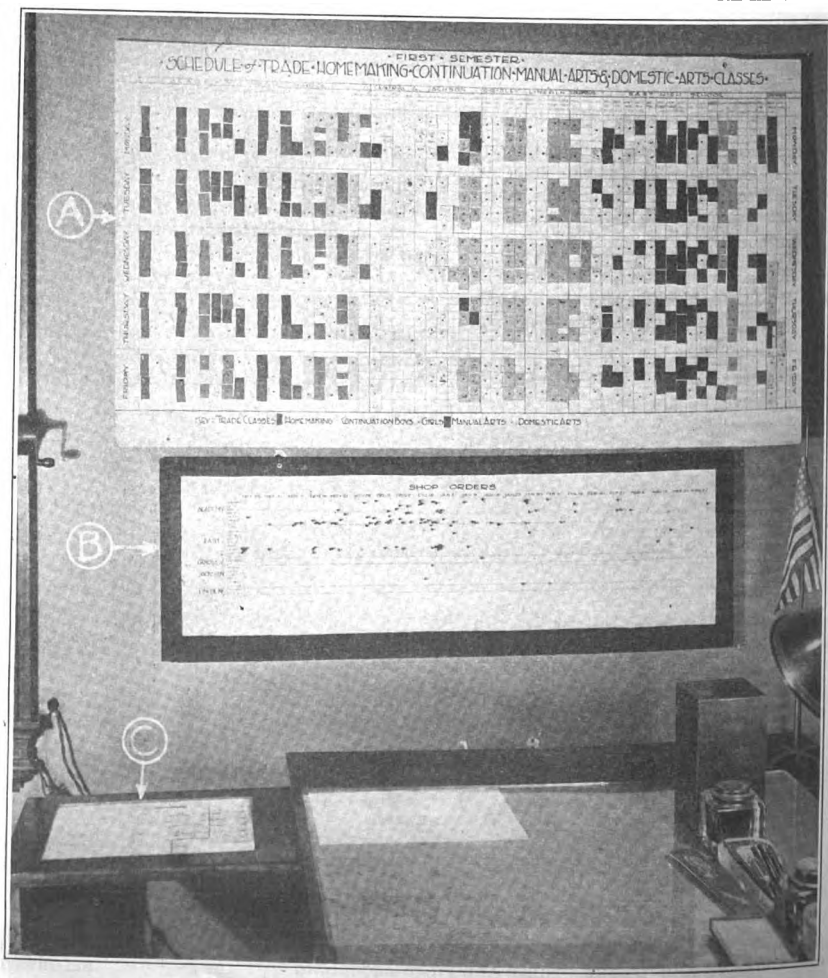


FIG. 12. HOW THE PROCEDURE CHART IS INSTALLED