

Chapter XIV

Office Equipment

~~~~~  
ADEQUATE EQUIPMENT ESSENTIAL. The arrangement of the office should to some extent be determined by the kinds of equipment to be used. The equipment in turn will naturally depend in part on the size of the office and the amount of work to be done.

In most communities the time has passed when the public expects the social agency to get along with a minimum of equipment and to use cast-off furniture for its office. Board members and contributors as well now generally recognize that, if only for the sake of the self-respect of the staff, the office must be neatly and harmoniously furnished with some attempt at uniformity and that the furniture must be carefully adapted to the work to be done.

Proper office equipment will increase the speed and production of work, reduce personal effort, cut down the amount of professional and clerical personnel which has to be employed, promote the morale of the staff, provide accuracy and precision in office processes, reduce the cost of producing routine work, standardize mechanical processes, and free its users for creative instead of routine work. Equipment should be in harmony with the financial and community standing of the organization.

An experienced executive has said, "We tried the false economy of carrying on with cumbersome old files and inadequate desk equipment. Now that we have non-backbreaking files, proper typewriter notebook rests, comfortable chairs, and so on, we wonder why we stayed with the old as long as we did."

Every social agency should examine carefully the possible labor-saving devices and the various kinds of furniture available with a view to securing that equipment which will enable the work to be done best at the lowest possible cost and with the greatest convenience and least fatigue to the worker.

DETERMINING WHEN TO BUY EQUIPMENT. The social agency should avoid the danger of buying equipment for the mere sake of possess-

ing it. Executives are sometimes captivated by the sight of a glittering machine which roars magnificently and rapidly emits vast quantities of some product.

(a) *Make the Equipment Prove Itself.* Every piece of equipment should be carefully considered with a view to determining whether there is enough work to justify its purchase, whether some less expensive piece will not do the work practically as well, and whether the equipment is adequate for normal activity and has a capacity large enough for a peak load. Social agencies have been known to buy expensive equipment that took care of their ordinary needs but when the agency was unusually busy could not keep up with the demand. This situation made necessary either the purchase of an additional or larger machine of the same kind or the abandonment of the first one.

The necessity for a certain piece of equipment can be determined by computing the cost of labor of a certain amount of work—say, typing addresses on 1,000 envelopes. An addressing machine under consideration should then be tested, its rate of output measured, and the cost of that output computed in terms of the interest and depreciation on the investment, plus the labor cost and the rental value of the extra floor space required. If the machinery will pay for itself on this basis, it is probably worth purchasing.

(b) *Try All Possible Appliances.* The social agency should not be won too quickly by the wiles of profit-minded salesmen. When it has been found that a process can be done by machinery, or a need is felt which machinery can meet, the whole range of possible equipment should be studied. All the different machines proposed for the purpose should be tested, if possible. For example, typists' chairs can be tried out by the typists, whose reports as to the most comfortable, combined with considerations of cost, should form a basis for the decision.

(c) *Avoidance of Monotony.* The late W. H. Lefingwell in *The Application of Scientific Management to the Office* wrote:

There are three conditions to be considered before the purchase of office machinery can be justified. First it must save labor, and this saving must be indicated in the pay roll, for it is of no advantage to save half of the time of an employee unless other work is immediately available to occupy the time saved. Second, it must enable the work to be done more quickly and thus give better service. Third, it must avoid monotony. There are certain operations which are extremely monotonous to high-grade clerks who part of the time have to do such work. To persons of mental capacity for doing a much higher grade of work, this is unusually

distasteful. In such cases machines may be purchased to eliminate monotony.

(d) *Purchase for Varied Use.* When purchasing equipment it is well to choose that which may be used for a variety of purposes. For example, in the office of a community chest, a typewriter on which there was also an adding device was tried out for making up the bills to subscribers. The executive concluded that it would be better to continue adding the amounts with the adding machine already installed and to use the typewriters on hand for entering the amounts on the bills. The adding machine the organization already had could be used for many other purposes besides, and the time saved by the adding typewriter was not enough to justify its purchase. When specialized equipment is bought, the social agency should make full use of it and should continually study its possibilities for services other than those for which it was primarily intended.

(e) *Standardized Equipment.* Another caution in the purchase of machinery is to install ordinarily only that which may be standardized within the agency. In the average office it is usually much better to have half a dozen typewriters of one make than one typewriter of each of six makes. After the best machine has been found for a given purpose, no further experimentation is necessary, and other pieces of the same kind may be bought without delay when needed.

One of the seminar group we have referred to suggests that the opinion of the person who will use the new machine should be sought before its purchase. That is a good idea, if the operator is competent and open-minded. On the other hand, the social agency cannot buy different kinds of typewriters to suit the whims of stenographers and typists. It is a great deal cheaper to train the operator to use a machine that has been decided upon as best for the agency than to change machines. This is particularly true at the current rate of labor turnover. It is better to get the operator for the machine than the machine for the operator.

One social agency adopted single-pedestal typewriter desks of an inexpensive make for all its typists. These desks were narrow and conserved valuable floor area, yet they provided sufficient drawer space for all ordinary needs. The top could be let down for typing with the keyboard at the proper level and the material worked comfortably near the typist's eyes. On the other hand, when the operator did clerical work, the desk could be closed to present a smooth working surface. If more desks were needed, it was unnecessary to

decide on the kind to get, since more of the model already in use could be purchased at once. (We hope those days when you can get what you want when you want it will soon return.)

(f) *Get Enough Equipment.* Another important consideration in the purchase of equipment is to buy enough to meet the needs of the organization. It is inefficient to buy only one large adding machine if at times two or three people must wait to use it. It might be better to purchase two or three small and inexpensive ones which could be kept on the desks of those who have to use them continually.

(g) *Uniform Color for Furniture.* Usually one color of furniture should be used throughout the office. The color of the woodwork may sometimes determine this. Thus walnut-finish furniture was used in the reception room of an agency because it matched the woodwork. The agency discovered, however, that light-finished oak furniture showed scratches less than did the darker finish and was more readily exchangeable if it became necessary to dispose of it at second hand. For the general office, therefore, oak furniture was purchased.

Of recent years much attention has been given to color harmony in offices. We have even read of them being done all in pearl gray. Presumably suitable colors for walls, ceiling, floor, and furniture will promote desirable mental and emotional activity in employees. You might find it worth while to consult a competent color engineer if any is available in your town.

(h) *Second-hand Equipment vs. New.* The social agency need not always buy new equipment. Rebuilt equipment will often fill the need perfectly well. It can usually be purchased at a cost sufficiently lower to justify its slightly shorter life. Desks seldom wear out. If the social agency could buy a sufficiently uniform lot of second-hand desks and chairs in reasonably good condition, it would be justified in the purchase. As this is being written, a year after the close of the Second World War, arrangements are being made by Federal agencies in collaboration with local chests and councils, to make many surplus items of equipment available at special prices to social agencies. Maybe when you read this there will still be some available. Better check up!

The use of reconditioned and second-hand equipment should be carefully considered, although it may be preferable to buy new equipment if it is to be in continuous use. For instance, the ordinary social agency probably would not find it economical to purchase

second-hand typewriters. The educational discount given to most agencies on request makes the price of a new typewriter sufficiently low, especially when further reduced by the trade-in value allowed for an old machine, to justify the purchase of a new one every three years. This trade-in procedure is followed by most business firms (except during periods of war-time shortage). Moreover, the purchase of new equipment, as against second-hand, is often justified because the new model may have improvements that will add greatly to the machine's efficiency.

A case in point is the dictating machine with transcriber which we have just purchased. When we began our work in Houston four years ago, in the middle of war, new equipment was off the civilian market. We purchased twenty-year-old used equipment, because even an old dictating machine is far better than none at all. Soon after the war we secured new electronic equipment, which has practically doubled our secretary's accuracy and speed in transcribing. A good secretary, too!

(i) *Continued Study of Equipment.* The progressive social agency board and executive will not remain content with the equipment in use. Rather, they will be continually studying magazines on office management and catalogues of office equipment, as well as visiting business equipment shows, to see what improvements and new devices have been put on the market, with the thought that by exchanging or replacing a machine or getting a new one a saving can be made that will justify the expenditure.

(j) *Service on Equipment.* It is self-evident that part of the task of using equipment is to keep it in good condition. If around the office there is no one (such as a mechanically minded office boy) who can do this, arrangements should be made with the sales agency of the machinery purchased to provide service each month. This service usually is low in cost, and it more than pays for itself through expert care which often prevents an actual breakdown.

Before purchasing equipment it is prudent to find out whether an adequate service department is located in the community. A social agency some years ago purchased an addressing machine which proved of little value in the long run because there was no service man nearer than a city 125 miles away. Make sure then, first, that the equipment is sturdy and simple and not likely to get out of order, and, second, that prompt and skillful repair service is available when necessary. Otherwise some important process may be held up because the machine breaks down at a critical moment.

A bank auditor has suggested that it is a good plan always to have available two pieces of a given item of equipment; if one breaks down, the other can be used. This may be wise for a bank, but it is hardly practical for a financially limited social agency.

Repairs can be prevented and the need for service held to a minimum if each employee is trained in the use and care of the equipment he is to handle. The manufacturer usually provides complete instructions. Some large agencies prepare their own manuals. An excellent example is *Know Your Typewriter*, Training Manual No. 1, issued by the Federal Security Agency in 1943. It begins with the excellent injunction, "Do not attempt to make your own repairs."

(k) *Selection of Equipment by Committee.* Some social agency board members and executives seem to fear that the agency will be criticized if machinery is purchased. They think that money should go into service instead of equipment. The answer, of course, is that necessary equipment, selected wisely and kept in good order, produces economy—through the actual saving of dollars for the agency's work—and efficiency, through making those dollars go farther and do better work.

A good way to avoid criticism in this matter is to organize a committee on office management. It may be made up of representatives of local business houses who are familiar with efficient methods of office management. The committee can be a tremendous help both for its competent action on office problems and for its manifest competence, which serves to disarm criticism of expenditures and internal activities.

**KINDS OF EQUIPMENT.** The foregoing principles for the purchase and use of office equipment are applicable to almost any social agency. Yet it is difficult to speak in detail regarding the kinds of equipment generally necessary, because the needs of agencies are so varied. Some consideration of the varieties of equipment which may be used, however, seem appropriate.

(a) *Reception Room Furniture.* In the reception room, reasonably comfortable arm chairs for the maximum probable number of callers at any one time should be provided, and perhaps a plain table. A bulletin board for notices regarding the work of the organization and samples of printed matter may also be useful. If the telephone operator serves also as the reception clerk, the switchboard (if the agency has one) will also have to be in this room. The board may be of the same color as the furniture, for the telephone companies usually allow a choice.

An executive of a mental hygiene clinic suggests that the reception room of an agency which has clients or patients who wait for conference or treatment should be homelike and informal. It should have books and magazines interesting and easy for the waiting persons to read. It should have furnishings much like those they are used to. In that way they may become relaxed and at their ease, so that their conferences with case worker, psychiatrist, or physician may be most effective.

(b) *Desks.* According to modern practice, desks throughout the office should be flat-toppers. Although steel furniture has many strong points, the wooden furniture people also are going vigorously after business with improved models. Better look over available models of both kinds.

Clerks whose work calls for no typing can use small tables. These can be inexpensive, with legs that can be unbolted so that the tables may be stored away when not in use.

Secretaries to executives may need double-pedestal typewriter desks because of both the large quantity of material which they have to keep close at hand and the great amount of work which they sometimes have to spread out on their desks. We like those secretarial desks which have shelves that disappear with the typewriter into the place where the double-depth file drawer otherwise would be. That keeps the top clear.

Typists in general, though, need only single-pedestal typewriter desks with folding tops into which the machine disappears when not in use. Typewriter stands are usually unsatisfactory for permanent workers, because as a rule they afford inadequate drawer space. Moreover, the stand is low in order to have the typewriter at a usable level. Material on which clerical work is to be done is therefore too far away from the worker's eyes.

All office furniture should be kept to the smallest convenient limit as to the number of drawers and size. If the principles of the cleared desk are followed, very few drawers will be needed. Desks should be considered in terms of the space they will occupy. Sixty-inch desks should not be purchased when fifty-inch desks will do, nor the latter when thirty-six-inch desks are sufficiently large. The sizes necessary for different operations should be carefully decided on, and each size and model set as a standard.

Much could be said in describing various kinds of desks and tables which have disappearing tops, cabinets for typewriter supplies, legs that can be lengthened or shortened, and adjustable foot

rests. Although adjustable apparatus may be highly desirable, it has not been available at a price within the reach of the average social agency. It is well to be on the alert for such equipment, but the buyer must not be beguiled into trying to secure its advantages when they are more than overbalanced by the cost. Perhaps some day this type of furniture will be standardized and its price put within the average agency's reach.

There are many possibilities in modern desks, however, for the installation of drawers of various depths and internal arrangement. *A Manual of Desk Drawer Layout*, published by the Office Planning Service Department of the Art Metal Construction Company, Jamestown, N. Y., shows fourteen excellent designs for layouts and says that endless variations are possible.

(c) *Personal Desk Efficiency.* The manual just mentioned contains an excellent article on "Personal Desk Efficiency."

(d) *Chairs.* The selection of chairs is of great importance. The social agency should take into consideration the fact that no two persons are alike in stature or posture, and for its clerical and stenographic force it should consider the purchase of any one of several excellent chairs now on the market which can be adjusted to suit the worker. "Posture" chairs pay high dividends in the satisfaction of workers, in freedom from weariness, and in increased output. Where for certain mechanical processes the operator must sit at a height greater than the average, he should be given either a high stool or a foot rest. To prevent shine on employees' clothes, some social agencies find it worth while to provide felt or sponge-rubber pads for the chairs. Other agencies buy chairs with perforated leather seats instead of solid wood. The floor covering in some offices is of such a nature that it may pay to provide chairs with casters of rubber or felt to prevent cutting or scratching the floor and to reduce noise.

(e) *Filing Cabinets.* Filing cabinets are necessary for social agency offices. Steel filing cabinets with ball-bearing drawer slides for ease in handling are in general use. For important records, safe cabinets may be purchased which will guarantee against destruction by fire. Filing cabinets of various heights may be obtained. Those of counter height will sometimes be convenient in a reception room. There the top of the cabinet may serve as a counter, and the records are kept in the drawers below.

It is hardly necessary to discuss wooden or steel transfer cases for storing records not currently needed, or cardboard boxes for the fil-



ing of pamphlets, booklets, clippings, and other material which does not have to be kept in the current file. Cuts or half-tones for publicity and printed matter may be kept in drawers of suitable height.

(f) *Card Files.* For filing cards many devices are used by social agencies. Some prefer a file with tiers of drawers, one above the other. This arrangement has the advantage of flexibility and accessibility. In another type of cabinet, large drawers pull out to considerable length, with several rows of cards running across the drawers instead of lengthwise. Tub desks of either the "upright" or "sitting" type (according to the position of the user) have their enthusiastic advocates, who say that they have distinct advantages if the clerk is constantly working with the cards. In a tub desk it is possible to place within the easy reach of one person as many as 10,000 cards. The difficulty with this arrangement is that, if more than one person has to work with these cards, one may interfere with the other.

Another popular file is in the form of a wheel. Into its periphery the file cards are fastened loosely, for speed in posting or for easy removal.

Visible card files—and there are many excellent kinds on the market—have the advantage of making their information instantly available. They are more expensive, however, than the ordinary "blind" type. The advantages to be gained by their use must be checked carefully against the extra cost.

Blind or vertical card files can be used to best advantage if they are closely indexed and are equipped with sufficient tabs, guides, and signals. In the use of card files and equipment, as in all other respects, the careful office manager will study possible uses of the simplest equipment first. He will purchase more complicated equipment only when he is sure that it will serve his need better than the simpler and cheaper devices.

(g) *Bookcases and Books.* Almost every social agency has a reference library of some proportions. It therefore has the problem of preserving for convenient use books, magazines, reports, proceedings, and other publications. Probably the best means is a sectional bookcase with glass doors which keep the stored material free from dust. Sections may be added as the need arises.

If a large number of books, pamphlets, and reports in what amounts to a considerable reference library are to be preserved, open sectional steel shelving may well be used instead of the more expensive glass-doored cases.

But, before the agency goes to the expense of buying a large number of books and more or less costly bookcases, the executive and

board should find out which books can be secured from the local public library and perhaps delivered by it on request. Some reference books are without doubt necessary for staff and office use. These should be kept in a central location, convenient to all users. Many other books, once read, will not be needed again. Buy for repeated use and permanence, and borrow for infrequent use and transience. Be sure that the bookcases contain only material worth keeping.

(h) *Safes.* In addition to bookcases, other facilities for storing supplies and records will be necessary in the average social work office. Most offices need a safe, preferably fireproof, for the keeping of money, books, and other important records. Indeed, if the organization is not housed in a fireproof building all the records and card files should be kept in fireproof cabinets. Fireproof safes and cabinets do not depreciate rapidly. The agency may be able to purchase them second-hand. It should make sure, however, that they are of first-class quality. The agency should have a written guarantee that the fireproof filling in the walls is of such a character that it will not shrink or slide with age and thus reduce the protective efficiency of the equipment.

(i) *Coat Racks and Lockers.* Provision is necessary for employees' hats and coats. Sometimes an improvised coat-and-hat rack may be made by fastening a shelf to the wall. Under it should be an iron pipe, about shoulder-high from the floor, connected to and held up by two upright pipes fastened to the floor with flanges. Any plumber can install such a rack, and from it coat hangers can be suspended.

An excellent facility is now available in the shape of demountable steel shelves, supported on a steel frame. Beneath the shelves is a slotted strip into which coat hangers can be hooked. This equipment can be purchased in various lengths to fit any wall space. One model is flanked by foot-square locked drawers in which employees may keep their hats and handbags.

The most desirable, but also the most expensive, plan is to provide for each employee a steel locker tall enough to keep his coat from dragging on the floor, with a space above for his hat. (Sometimes entirely satisfactory second-hand lockers can be purchased.) If kept locked, lockers prevent theft, keep clothes relatively free from dust and dirt, and give the employee a place for other possessions which may be lacking if drawer space is not provided in his desk. (Rubber overshoes do not belong in desk drawers, though we have seen them there.)

Combination locks are ordinarily not so satisfactory on lockers as

padlocks and keys, because the combination may be learned by other persons and the lock picked and because the employee sometimes forgets the combination. A good procedure is to furnish each employee with a padlock and key in return for a deposit which covers their value. The deposit can be refunded when the employee leaves the organization and returns the padlock and key. This scheme helps to guard against the careless loss of the locks and keys.

(j) *Storage Cabinets and Shelving.* Steel cabinets with doors and adjustable shelves may be used for the storage of stock. Cabinets may not be necessary if a separate room can be given over to this purpose. It is a good plan in the latter case to buy open sectional steel shelving, in which the distance between shelves is adjustable according to the height of the various articles to be stored. This shelving is not much more expensive than wood at first cost, has practically no depreciation, may be taken down and set up in new situations much less expensively than wooden shelving, and is so simple to mount and demount that almost any office boy can do it. The storage space should be sufficient to make unnecessary the keeping of any supplies on top of safes, file cabinets, or other equipment.

Open shelving is not practical in the general office. It is exceedingly difficult to keep the shelved articles always neat, clean, and in good order. For the sake of the effect on the employees, supplies which must be kept in the general office should be put in cabinets. These contribute to the appearance of the office and keep out dust and dirt. They will also, if locked, prevent articles from being taken from the shelves without the knowledge of the one responsible for issuing and checking supplies. Supplies should be as carefully guarded and their issuance as carefully recorded as money. This matter will be discussed in a later chapter.

(k) *Dictating Machines.* Perhaps the most frequent operation in the social agency office is the dictation and writing of correspondence and records. Although in many of these offices correspondence is still handled by dictation to a stenographer and case records are sometimes typed by the case worker, modern practice does not approve these methods. Obviously the writing of letters and records in longhand or on the typewriter by the person responsible for them is highly inefficient, except in the very smallest organizations of the one-man or one-woman type.

Practical experience indicates that for all correspondence and records almost any social agency office will find the use of dictating and transcribing machines of standard make far more economical and

convenient than dictation to stenographers. In most offices the dictating machine will pay for itself many times over in a relatively short period of time. A further advantage is that the dictating machine is immediately available to the dictator. He can dictate any memoranda or ideas which occur to him without waiting for his secretary—before hours, after hours and at noon hour, on Sundays or holidays. If he has to travel part of the time, he can arrange with one of the dictating machine companies for the loan of a machine so that he can dictate his correspondence on the train or in another city. Then he can have the material transcribed by his own secretary or else by the dictating machine company's operator at a low cost.

The dictating machine makes possible more effective dictation, since the dictator does not feel that he is keeping a secretary waiting while he composes his thoughts. Moreover, the dictated material, if there is a large amount, can be distributed among two or more transcribers. In this way rush work can be handled much more rapidly than can dictation from notes, which usually can be transcribed only by the stenographer who took them. The flow of work can thus be equalized. Furthermore, if operators find the work monotonous, two may alternate, half a day apiece, at transcription and at other work.

The advantages of using a dictating machine are manifold and well demonstrated. Dictation to a machine is quite as flexible as to a stenographer; words can be corrected, extra carbon copies and rush orders indicated, and the length of the letter shown for appropriate spacing on the letterhead.

In addition, two or more people may use one dictating machine on a definite schedule, and one operator can take all the cylinders for transcription. On the other hand, dictators in various parts of the office or in branch offices may use their own machines. Then all these cylinders may be collected and delivered to a central department for transcription. There one operator with one transcribing machine may perhaps handle all of them. One cylinder-shaving machine for clearing the wax cylinders is sufficient for almost any number of dictating machines.

Maybe the agency should have one stenographer available to take notes on speeches, take down important and complex resolutions in a meeting, or handle a letter for an officer of the agency. The dictating machine is so flexible, however, that the stenographic skill of the secretary should be little used.

The advantages of the dictating machine are so clear that they

should not be qualified by the unwillingness of executives, staff members, or stenographers to use the machine. Anyone can learn to dictate to the machine. Any intelligent typist or stenographer can learn to transcribe. If the social agency has enough use for the equipment, say half an hour or more a day, it should be purchased. Then its use should be required just as is that of any other standard office procedure.

First, it is wise to determine whether there is enough dictation to justify the purchase of one or more machines. Second, only as many machines should be bought as are necessary, with perhaps two or more persons sharing them on a scheduled basis. Third, it should be understood that no correspondence or records are to be handled by stenographic dictation except in an emergency.

During and since the Second World War great improvements have been made in the sensitivity of dictating machines, through the development of electronic recording devices. If desired, the apparatus can be hooked up to record conferences and small meetings or telephone conversations. If a phone dialogue is to be recorded, by all means the party at the other end of the conversation should be notified that all he says will be transcribed. Secret recording of his words would smack too much of the unsavory methods of the infamous Gestapo.

The executive of a psychiatric clinic suggests that a sensitive recording machine may be used to record a patient's own words in a psychiatric interview. That would save the psychiatrist's time in dictation of a case record.

As this is being written, advertisements of dictating machines which do their recording on flat discs or on strips of wire are appearing in the business magazines. These devices as they become available may well be worth investigating. Their advantages, if any, however, would merely strengthen the arguments given above for the use of machines for dictation and transcription.

(*h*) *Typewriters.* Among office machines, of course, the typewriter is the old stand-by and is probably more generally used than any other item of office equipment. Several standard makes of typewriters will give satisfactory service for the three-year period of use which has already been mentioned.

The agency which intends to purchase typewriters should try out carefully, for its particular kind of work, the standard makes available. It should choose the one which gives the greatest speed, the best alignment, the most attractive work, the least fatigue to the

operator, and the greatest durability. These qualities should be combined with facility in special processes, such, for example, as the handling of cards in a social service exchange or the cutting of mimeograph stencils for an organization which has a great deal of publicity work. Sometimes the slightly higher cost of a noiseless typewriter may be justified—when the secretary shares the office of an executive who would be disturbed by the ordinary typewriter, or when in the reception room the ordinary machine would distract the telephone operator or be disturbing to callers.

After the most suitable kind of typewriter has been selected, the organization should standardize on it, purchasing other kinds only for special needs. For example, the standard typewriter in an office might be of one make, but another kind might be found better for cutting stencils. One machine of the second variety might therefore be purchased if there was enough stencil cutting to justify the special equipment.

Our secretary was hell-bent on our purchasing an electric typewriter. She had been allured by the seductive advertising which claims greater output, more carbon copies, and less fatigue for the operator, but she withdrew her proposal when she found how much the machine costs. Anyway, she does so many other things for us that she does not type more than half her time.

(*m*) *Aids for Typists.* Certain aids to typing efficiency can be purchased. A copy holder can be used in manuscript copying, tabulating, or statistical work. It will increase the speed considerably and greatly decrease the number of errors.

For secretaries, slantwise trays that can be put in a desk drawer for the different kinds of letterheads, envelopes, and carbon paper will add to the working speed and convenience. (A first-class desk would come so equipped.)

Manufacturers of special cards and forms offer devices that greatly facilitate the typing of such forms. An arrangement which several organizations have found saves time in typing is to have all small forms of which many are to be typed in succession printed in strips as long as the paper stock from which they are made will allow. These strips should not be so long that they will hang over the end of the desk and fall off because of their own weight. For instance, bills that must be made out each month may be printed in strips of six or eight and run through the typewriter or the addressing machine without separate insertion. Master cards for a permanent list of subscribers or members may similarly be printed in strips sepa-

rated by perforations and torn apart after typing. For memoranda to go in tickler files, plain strips of paper—either in series of a definite number, such as six, or in rolls on holders which may be fastened to the typewriter—may be purchased. Various fanfold arrangements of strips of forms interleaved with carbon paper are available. These afford a great saving of time in inserting carbon paper and in typing. In ordering strip forms from the printer, make sure that at the bottom there is a little unprinted strip, an inch or an inch and a half in length, which will hold the strip securely in the typewriter for typing at the bottom of the last form.

(n) *Duplicating Devices.* The typewriter is only one of many instruments for the mechanical recording of communications. Numerous duplicating machines are available, each of which seems to fill its purpose admirably.

Our ditto machine, for example, will make excellent copies up to 200 in number. Still more copies can be produced by making an original copy with ditto carbon paper. Inks of different colors can be used. This machine employs what is called a gelatin transfer process.

For a larger number of copies than the ditto machine can produce, and for a clearer impression, the mimeograph is widely used. This utilizes a wax stencil sheet in which a typewriter or a stylus cuts the desired impression. The stencil then is placed on a roller, and through it ink is squeezed on sheets of paper. A good mimeograph stencil will imprint thousands of copies.

Both the ditto machine and the mimeograph (the latter by the use of the mimeoscope or lighted table) will reproduce drawings, charts, or other illustrative material, in addition to typed matter.

Another duplicating machine, the multigraph, prints through an inked ribbon. The advantage of this machine is that it turns out work that is very much like typewriting. Excellent filling in of names, addresses, and salutations can be done on these letters, either by skilled typists using carefully matched ribbons on their machines or by other office workers using special address plates made with equipment that can now be obtained from the manufacturer. Furthermore, the multigraph can be supplied with printer's type and cuts and an inked roller. Thus transformed, the multigraph at low cost will produce printed forms, leaflets, pamphlets, and other relatively simple printed matter in the agency's own office. Considerable advantages in economy and speed of printing can be gained by the

use of this equipment if the agency has enough of such work to justify the cost of the machine.

In addition to these old stand-bys for the duplication of typed or printed matter, several other devices have been developed recently. These reproduce through photographic or chemical processes. One of them, the multilith, is widely used in large social agencies (and in some small ones) for a variety of work which once would have required a printer.

Many of these devices will bear study. Still, the social agency should beware of elaborate and costly equipment unless a fairly continuous volume of work will justify its use. Further, it is wise to investigate the question of the amount of skill necessary for operation and what the cost will be to maintain a trained operator.

No equipment of this nature should be purchased until the organization has carefully compared the cost of preparation of such material outside the office—either by letter and duplicating companies or by regular printers—against the cost of interest on the equipment, depreciation, repairs, service, and the labor required to operate it, plus the value of the space it will occupy, especially when space is at a premium in an already crowded office. It is often better to have duplicating and printing done outside by firms equipped to handle it than to attempt it in the agency office with relatively unskilled workers and the possibility of disrupting normal office processes.

The social agency should also consult the sales representatives of the manufacturers of these various mechanical devices to learn what savings can be made through their use. For example, a good salesman of the ditto machine will be able to show how some of the agency's forms can be printed in ditto ink and the figures typed on these forms through use of a ditto ribbon or carbon, and the form and the typing reproduced at one time. Such a plan is followed by some community chests for the copying of the budgets of the member organizations and for the preparation of reports of campaign statistics to be sent to campaign workers. The ditto machine is highly flexible and useful where a limited number of copies are needed. The social agency should examine each process which requires duplication with a view to finding out whether it can be handled better and less expensively by one of the modern methods. (Our wife's cousin has hopefully figured out how much we could save by purchase of a multilith. Unhappily, our harassed office manager has not been able



to decide how she would fit this into the already complicated mechanical procedures of the office, or where she would store the vast quantities of supplies which the machine would so rapidly emit. Still, perhaps this is only an academic question. Wife's cousin said we might be able to get the machine nine months to a year from now. Maybe something better and cheaper will turn up by then.)

Again, the equipment should be complete. The agency which installs a mimeograph, multigraph, or multilith will find it worth while to consider the purchase of additional equipment to make the use of the machinery more effective. For example, an electric motor will speed up the mimeograph so that one person instead of two can operate it and a long run can be made without wearying the operator. A relatively inexpensive slip-sheet device will further cut down labor and prevent the smearing of ink when duplication is done on non-absorbent stock such as bond paper. An automatic counter will also be useful. An automatic feed will enable the operator to speed up the machine and give it only partial attention while doing other work. Get the machine as complete as possible at the time of purchase for the sake of making all possible savings from the beginning. Moreover, it is usually easier to get a board of directors to agree in the beginning to the purchase of a complete piece of equipment than it is later. If additional devices are proposed afterwards, the board may object that they should have been thought of when the machine was purchased. Quite right, too!

(o) *Addressing Machines.* Often a necessary complement to the duplication of material is addressing the result for mailing. Most organizations can afford some sort of addressing equipment for all lists that are used repeatedly. This equipment may be very simple for the agency that has only a few committees or a small membership. On the other hand the apparatus may be quite elaborate for the agency whose mailing lists are large and frequently used.

Mechanical addressing equipment has the advantage of saving time and labor and of making it possible to get out mail on short notice, once the original material is correct (and provided it does not get mixed up in the file drawers).

There are several kinds of addressing equipment. One type uses a fiber stencil much like that of the mimeograph in principle. This equipment is relatively inexpensive to purchase and to operate because the stencils can be made on a typewriter. In addition, the stencils themselves are cheap. Such a machine is entirely satisfactory for

addressing circulars and other printed matter where the appearance is not important.

On the other hand, if the material to be mailed has to give the impression of typewriting, nothing will adequately take the place of the addressing machines which print from embossed plates through a ribbon.

All these addressing machine systems make provision for tabs on the plates, or notches or holes in the stencil frames, to indicate various classifications; they also provide selectors which will address from some plates and skip others. Then, too, there is space on the plates or stencils on which information of various kinds can be written—as, for example, the date and amount of payment received. Plates or stencils may often take the place of other card files and lists. If of suitable height and spacing, plates may be used instead of ledger cards as the basis of an accounting or membership record. They can be used for still other purposes in an office—filling out the payroll, making out checks, addressing labels, and so on.

Just ask the salesman. He will be glad to think up innumerable uses for his equipment and will be delighted to make an efficiency plan for all your office procedures (possibly with his equipment the essential factor in the system). No charge for the plan, either!

(*p*) *Intercommunicating Devices and Telephones.* In addition to the kinds of equipment mentioned, some system of intercommunication between the executive members of the staff and others with whom quick contact is desirable may be necessary for a large social agency. For the smaller organizations, however, an elaborate system will not be required.

Nowhere does efficiency in the ludicrous sense seem more overdone than in some of our highly intricate systems of internal communication. They save no time and pile up expense for installation and for messengers and operators. The agency should learn how much intercommunication equipment is thought necessary by the engineer-salesman and then probably install somewhat less than he recommends.

On the other hand, every executive and every other person in the organization who has any considerable number of contacts with people outside the office should have a telephone. It is better to install two telephones for people at contiguous desks who make considerable use of them than to have both persons share one instrument, with attendant delay to themselves and to others. Conversely, it is

equally wasteful to have two telephones where one will be adequate. Telephone service operated through a switchboard with an operator (who in a smaller agency may also serve as the reception clerk, file clerk, and newspaper clipper) may save the necessity of an elaborate intercommunicating telephone or loud speaker system.

In some organizations where telephones are actively used, a duplicate private branch exchange system in which numbers are automatically called may be desirable. Again, a separate annunciator system by which the executive may have instant communication with distant parts of his office may be practical.

The executive may need a buzzer for a messenger or his secretary, but he should hardly use it to summon his responsible executive assistants. It is more in keeping with their responsibility and dignity either to call them by telephone or to go to them for conference. Sub-executives also may need buzzers to summon messengers or their own secretaries. A telephone extension for the secretary and a buzzer to indicate when the executive needs to answer the telephone, and vice versa, may take the place of extra main telephone lines. Sometimes not even a switchboard is needed; instead, a two-or-three-way switch equipped with a buzzer can be used to connect the person desired with the line on which he is being called.

It is a wise procedure to consult the local telephone company and to follow its technical advice. Do not be too much beguiled by the fellows who want to sell you separate systems. Remember, you can only carry on one conversation at a time no matter how many intercommunicators demand your attention. If you stick to the telephone system, only one can get to you at a time. Elsewhere may lie insanity.

If the office has a telephone switchboard, the operator should be instructed to give certain executive members of the staff definite lines at night, on Sundays, and on holidays, so that those numbers may be used if these functionaries are to be reachable at such times. It may sometimes be desirable to have the night numbers listed in the telephone book under the regular number of the organization. Again, it may be well to list the executive's home telephone number as an emergency number for the organization, so that he can be reached out of office hours. In turn, it helps to remove a source of domestic irritation, if the executive's name is listed in the directory with his office telephone number, so that absent-minded people who can remember his name but not that of the organization can reach him at the office without calling his home first to get the number. Further, it may help those who wish to telephone the agency to have

it listed in more than one way in the telephone book—as: “Midtown Visiting Nurse Association” and “Visiting Nurse Association, Midtown.”

(*q*) *The Telephone and Its Operation.* The telephone operator is one of the major creators of public opinion for the social agency. She is usually the chief personal contact between the agency and the public. She is comparable to the “intake” secretary who screens all applicants for treatment or service.

The operator should be carefully selected for her courtesy, agreeableness, precision, reliability, promptness, discretion, pleasantness of voice, clarity of enunciation, and politeness of manner. Even though she “doubles” in reception, filing, and typing, she should, if possible, be a graduate of the telephone company’s training school and preferably have some experience in telephone exchanges. If she is chosen from the staff, she should be sent to one of the training schools for private branch exchange operators which most telephone companies operate. She should be trained to record all long-distance calls made in the agency. A separate slip should be made for each and filed with the accounting department so that it can be charged to the proper individual or department. The operator should be quick in making connections and in getting numbers. She should be responsible for handling outside calls for at least the more important executives in the organization. She should know enough about the agency’s work to refer the inquirer to the individual who can supply requested information. She should not, however, attempt to answer inquiries about agency policies and practices herself—if she is inadequately informed she may cause the agency a great deal of trouble. The desire to please should be tempered with discretion—in this, as in other respects.

The telephone operator in many social agencies also serves as reception clerk. In this capacity, too, courtesy and helpfulness are important. Whether the reception clerk doubles as telephone operator or not, she should not ordinarily give out information regarding the agency’s operation but should refer such requests to a designated executive. One shudders at the recollection of the half truths that have been lisped to inquirers by a sweet reception clerk and have come thundering back to the executive for painful correction. Under such circumstances one might easily wish that the amiable clerk were beautiful but *dumb!*

In many organizations the telephone and reception clerk may also, in her spare time, take care of the files and the clipping of news-

papers and do typing, checking, or other routine work which does not need to be done at any particular time. These duties should not be of such a nature as to divert her from her fundamental work as telephone operator. On the other hand, she should have enough casual work to keep her fully occupied, if for no other reason than that an apparently idle clerk creates a bad impression on a public which more or less cheerfully gives its dollars to the social agency or is taxed for its support.

(Our operator-receptionist has been a changed woman ever since she chanced to read the above while assembling for the seminar the dittoed copies of the first draft of this revised edition. She said to our secretary, "Do you suppose he means me?")

(r) *Visible Index of Employees In and Out.* A useful piece of office equipment is an index of the presence of executive and professional employees, as kept by the telephone operator or reception clerk. The index has an indicator which shows whether each person is in or out of the office and, if out, when he will return. (Our operator read this, too, and made an indicator out of cardboard with the help of Countess, our machine operators' mechanical genius. Works fine, too!)

A blackboard appropriately lettered and ruled will serve the same purpose. Volunteer workers who give considerable time to the agency may be listed as well.

A standard office procedure should be for every executive or sub-executive who is going out of the office on business to tell the reception clerk, for the information of those who may wish to get in touch with him, where he is going, how he can be reached, and when he will return. The receptionist should write down this information on a pad, lest she forget or fail to report these data to a relief operator.

(s) *Drinking Fountains.* The organization should supply drinking fountains (unless they are already a part of the building equipment). If it is not convenient or practical to connect an electrically cooled drinking fountain, with supply and discharge pipes, its place may be taken by a water bottle that may be filled in the washroom by the janitor or a male member of the clerical force. In addition there should be a metal stand for the bottle, with an ice chamber to be filled by the janitor (if any). Close at hand should be paper cups in a container on the wall and a waste basket into which to drop the used cups. The fountain, whether automatic or man-serviced,

should be placed in the hallway by the door to the general office or in some other convenient location which can be reached with a minimum of walking.

(t) *Floor Coverings.* Another important item of furnishing is the floor covering. Rugs may be necessary for the more important executive offices where the floor boards need to be covered and where important callers are received. Personally we are against office rugs. For social agencies they seem a form of ornamental supererogation. Plain board floors scrubbed, shellacked, and waxed make an excellent surface. Concrete floors, because they are hard and cold, are undesirable and should be covered with battleship linoleum or composition tile. Old wooden floors with wide cracks between the boards can be masked in the same way. Linoleum or composition floors should be waxed and varnished when they commence to show wear. A good floor should be attractive in color and texture; tough and durable; not seriously affected by spilled ink; smooth, so that equipment rolled over it will not catch and tip over; easily swept and washed; and, in case it becomes worn in spots, capable of being easily repaired by putting in new pieces of material.

(u) *Various Kinds of Useful Equipment.* It seems hardly necessary to go into detail regarding other kinds of equipment which a social agency office may need. Yet, a checking of such possible items may be an interesting exercise:

A posting machine for recording payments on subscriptions or memberships.

A slide rule for calculating percentages or, if many are to be figured, a calculating machine.

An adding machine. (Try out the various kinds of adding machines to make sure that you get the one best adapted to your needs. Some adding machines require punching every key to give a figure, so that \$10,000 would require the punching of five dollar keys and of two keys for the cents. Other machines require only the punching of one key for the first digit of the \$10,000.00 figure; the other ciphers register automatically. The kind of machine to be purchased will depend on whether the organization's accounts deal largely in even figures, in which case the latter machine might be chosen. If, however, the accounts are largely of odd numbers, such for example as \$45.53, the first machine might be advisable.)

Letter-stamping and sealing machines which count the number of stamps; or—

More elaborate machines which will either seal and stamp letters in one operation or print a permit number on the envelope and register the number of letters while sealing them.

Folding machines, useful when large quantities of letters or circulars are frequently mailed.

Pencil sharpeners (which will not be necessary if mechanical pencils are used).

Letter scales (both to save postage on letters that are lighter than they appear to be and to prevent the recipients from suffering either a delay or a charge for excess postage if the mail clerk guessed the weight too light).

Wire baskets or wooden trays for staff members who cannot be persuaded to keep their incoming and outgoing mail in their shallow desk drawers.

City directories.

Social service directories.

*The Social Work Year Book.*

(Modesty forbids that we mention the present *Handbook for Social Agency Administration*, but its 1931 version, *Social Work Administration* we have happily observed in agreeable proximity to many health and welfare administrators.)

Business directories, such as the Red Book or Blue Book printed in many cities.

Electric clocks.

A visible index of telephone numbers frequently called, for the telephone operator.

Stenographic notebook holders if dictating machines are not used.

Ball-bearing, sliding check sorters for alphabetizing checks and cards quickly.

Letter-sorting racks.

"Rubber fingers" for ease in sorting cards.

Sticks or bones for aid in folding circulars.

Calendars in sight of all workers (preferably, for the sake of the self-respect of the social agency, not the familiar advertising calendars but calendars free from advertising which can be bought).

Linoleum tops and strips for desks which must not be scratched by steel drawers of cards on which the desk's occupant is working.

Trays or stands (on wheels) on which addressing machine plates or other heavy articles can be moved from one part of the office to another.

Costumers for the outer garments of guests and users of private offices.

Shears for those who clip newspapers or work up forms for office use or for the printer.

Paste or rubber cement.

Staplers, for binding together the pages of documents.

Wire clips of several capacities (you may think this is funny, unless you have tried to fasten 25 pages together with a clip meant for two or three pages).

Ash trays for the use of callers at executive and professional desks and in the reception room.

Rubber bands of various sizes.

Rulers (measured off in inches and also to fit typewritten spacing for the preparation of forms which require typed fill-in).

Blotters (not large elaborate desk blotter pads, which represent an unnecessary expense, collect dirt, fray around the edges, and interfere with the principle of the clear desk).

No fancy desk sets (but fountain pen stands to keep the pen at attention may be useful).

Folding chairs, for meetings larger than those for which the normal number of chairs is sufficient.

You may think this list is comical for being so detailed. As a matter of fact, it is an actual, though somewhat abbreviated, record of the things we found in a large social agency office a few years ago. We would probably find more now.

For further suggestions on possible equipment see the advertising pages of such a magazine as *American Business* or drop in at your local office supply house. You will discover many items not on the list above—and a lot of them worth considering for your office, too!

(v) *Equipment for the Wash Room.* The wash room should have a mirror, but no brush or comb (use your own). Towels (paper preferred) and soap should be furnished by the building, if the agency is in rented space. Some institutions have electric machines which dry with a strong blast of hot air, thus dispensing with towels.

*Non-Essentials.* On the fringe of the field of equipment—the frosting on the cake of office necessity, as it were—might be found certain items of furniture which add to the appearance of an office and are supplied for aesthetic and inspirational purposes rather than utility.

Thus a rug may not actually be necessary for the reception room,



yet it may add to the appearance of cheerfulness and hominess and thus be worth while. The seminar already referred to suggests linoleum rugs rather than the usual fabric kind. O.K. if you like 'em!

Framed pictures of persons who typify the agency's service, posters, or cartoons from financial or membership campaigns may contribute to the historical and picturesque value of the reception room. So much cannot be said of photographs of unnamed former presidents of the organization—or of banquets of bygone days in which no one can remember the names of those who sat so solemnly facing the flashlight. If such photographs are necessary, it may be wise to have frames made with removable backs so that new photographs can occasionally be put in to record the more recent personal history of the organization. Some agencies have the photographs of their presidents and others who have rendered distinguished service framed uniformly, autographed, and put in a sort of genial "rogues" gallery in the reception room, the conference room, or the executive's office. To be represented in this gallery may be a form of distinction gratifying to the personalities thus displayed.

Flowers from the gardens of staff members may be used to decorate the reception room. Flowering plants or pots of ivy (but not potted aspidistra) also add to the cheerfulness of the place.

Curtains or draperies may sometimes be used with satisfactory effect in the reception room. They hardly belong, though, in a clerical or accounting office, which should be regarded as a workshop.

Individual executives may choose embellishments for their own offices according to their hobbies and artistic enthusiasms. One able executive's office we have seen was decorated with busts of Plato and Aristotle, who presumably he thought were early social workers. Another executive's office was charmingly decorated with color etchings. Nor need the general offices of the organization be entirely bare. A large map of the city may be decorative and also if divided into census tracts serve as a basis for statistical analysis or for the geographical distribution of cards for clients, members, or givers. Posters may be framed and hung in the spaces between windows. Large colored prints of subjects appropriate to the agency may also add to the life and cheerfulness of the room.

We have not yet heard of a radio or "industrial music" being installed in a social agency office and used continually. Lively tunes over the radio might help in speeding up some office processes, particularly in the latter part of the day. Business offices, factories, banks, department stores, and other establishments are making steadily increasing use of "wired music," and the results are appar-

ently gratifying both to user and to vendor. Perhaps social agencies will find similar values in the device. During the times of large-scale application for relief during the Great Depression we saw some crowded public assistance offices in which soothing music might have had a very beneficial effect.

**CARE OF THE OFFICE.** Certainly the whole office should be kept neat at all times. There is no excuse whatever for scraps of paper on the floor, for boxes of supplies on the tops of safes and file cabinets, or for any other kind of disorder. The appearance of the office has an important effect on the staff, which works more cheerfully and in a more orderly way in a neat and attractive office than in one that is ugly and sloppy. Good appearance in a room also affects callers favorably.

**ARRANGEMENT OF EQUIPMENT.** An important factor in the neatness of the office and in the effective use of equipment is the arrangement of that equipment so as to save the steps of workers, to allow the work to flow evenly through the office, and to facilitate access to those pieces of equipment which are frequently used.

When you are arranging a new office it is especially important to plan the location of all equipment. At that time the electrical outlets necessary for the operation of machinery can be placed in relation to the machines which are to be connected with them. Electric cords running along the floor to some distant socket or dangling from the ceiling to some piece of machinery are unsightly, collect dirt, and may cause fire. They also present the possibility of an interruption of work through the breaking of the connections. Conduits and openings should be conveniently placed, and an ample number should be supplied for possible future use.

The equipment, if possible, should be so arranged that the work flows from one end of the office to the other. The material to be handled should come in, let us say, at the front of the office as dictated material, pledges, membership cards, payments, and the like and go out at the other end in the shape of letters ready for mailing, receipts, and so forth. As far as possible, similar operations should be grouped together so that workers will not have to go long distances for conferences or for passing along material that requires a series of operations by different persons. Less important subsidiary operations should be grouped around the important ones.

If some of the operations are noisy, such as the making of addressing machine plates or the running of a duplicating machine, the equipment should be put in a room by itself. In a very large office, however, the noisy operations may more or less merge in a hum so

as not to be seriously distracting. If the noise is too objectionable and the organization can spend as much money as it wants to, the installation of soundproof tiles on ceilings and walls will greatly reduce the noise. It is hardly to be thought, however, that most social agencies either will be so large and clangorous as to find such measures necessary for theoretical efficiency or will have such ample funds available. Noise can be reduced to some extent by using soft platens on typewriters, putting rubber feet or felt pads under the typewriter legs, oiling and adjusting machinery so as to reduce its noise to a minimum, and putting sound-absorbing half booths around noisy machines. We have never seen a social agency office as noisy as the average newspaper editorial office, where vast amounts of creative work are done in the midst of confusion. Noise is less important than some people think, if those who have to listen to it will accept it as inevitable and make the best of it. As a matter of fact, the ordinarily noisy office by its very tumult will make unnecessary some of the partitions that are often requested. The noise itself, blended into an all-pervading hum, will give a form of privacy for face-to-face conversations.

For uniformity's sake, all employees as far as possible should face in one direction. The light should come if practicable over the left shoulder or from the back. Workers preferably should face away from any door through which callers may enter and distract their attention.

Sufficient space should be left between rows of desks—probably at least four feet from one desk to the one behind it—to allow employees to pass easily back and forth. Instead of putting employees in long rows, it is better if possible to place their desks in pairs with an aisle at least three feet wide on either side, so that each can get out without interfering with the other. One of the filing equipment companies has recommended that at least five feet be allowed in front of each filing cabinet.

The arrangement of office equipment will thus be seen to be a necessary concomitant to its selection, and careful attention to both will provide a suitable mechanical background for the operation of a social agency.

#### QUESTIONS

\*\*\*\*\*

1. In some typical social agency you know, how is a distinction made as to what equipment is to be purchased and when this purchase is to be made?

2. What reasons may be given for the purchase of the various items of equipment which this agency uses?
3. What does this agency do about standardizing equipment?
4. What items of equipment has it made standard for the organization?
5. Has it adopted any policy on the color of its equipment and furniture?
6. Is the equipment adequate to meet the needs of the organization?
7. What is its policy in purchasing new as against second-hand equipment?
8. What arrangement has it made for service on the equipment?
9. How is the equipment selected—by an individual or by a committee?
10. List the kinds of equipment which this agency uses.
11. What kind of desks does it use?
12. What kinds of chairs?
13. What kinds of filing cabinets?
14. What kinds of bookcases?
15. What kind of material goes into those bookcases?
16. What arrangements, if any, are made for borrowing or renting equipment in times of unusually heavy work?
17. What facilities has the agency for protecting its records?
18. What facilities does it use for taking care of the garments of its employees?
19. What arrangements are there for storage of supplies?
20. How is dictation handled?
21. What typewriters are used, and why?
22. What duplicating devices, and why?
23. What addressing equipment, and why?
24. What facilities are there for drinking water?
25. What kind of floor is there, and how is it covered?
26. What principles are followed in the purchase and use of other kinds of equipment and supplies?
27. How well is the office kept in regard to neatness, cleanliness, and so on?
28. What principles have been followed in the arrangement of the equipment?
29. How do you think the procedure of this office in these various respects might be improved?