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Contributors

Chapman, Frank E. 1884-1931.

Publication/Creation

New York : The Macmillan company, 1924.

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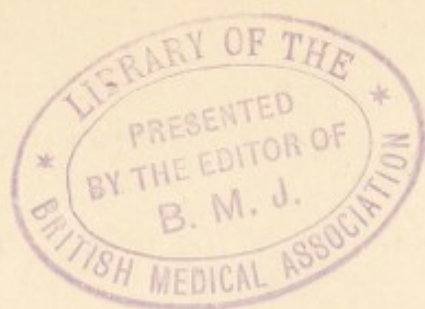
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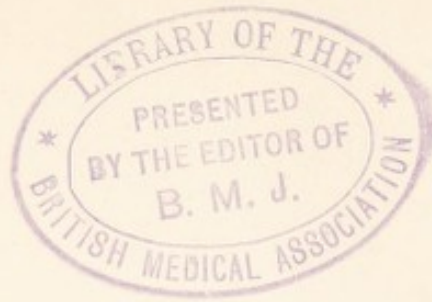
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Hospital Organization and Operation



By

FRANK E. CHAPMAN

DIRECTOR, MOUNT SINAI HOSPITAL OF CLEVELAND

New York

THE MACMILLAN COMPANY

1924

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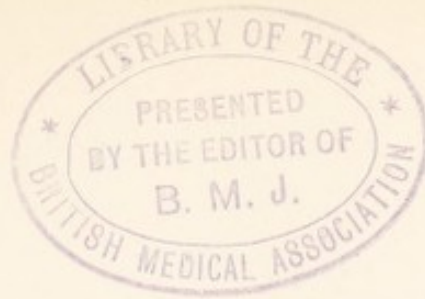
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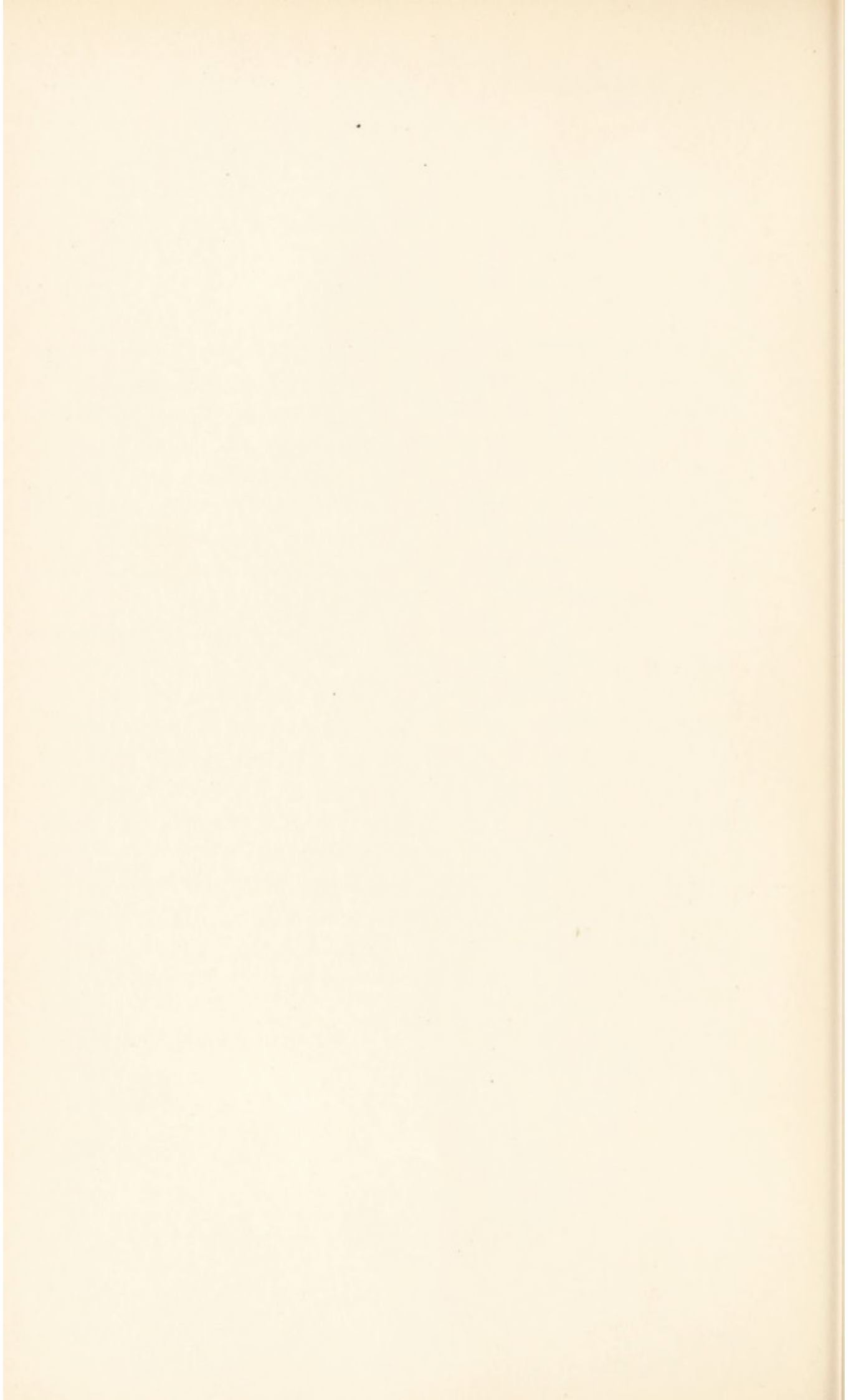
FOREWORD

Circling humanity's wrist with finger on the pulse, recording its rhythmic beating, the modern hospital comes into sympathy with all mankind. In the manifold ministrations of ideal hospital service the great heart of humanity feels each answering throb of its own. The hospital most safely ushers us into the world, and during all the seven stages of man cares for us in our injuries and our infirmities. It watches at our bedside to close the book of life, for just as it wrote the foreword, so too its stylus traces *finis*.

Time was when religion alone inspired men and women to serve poor suffering humanity in sweet charity's name. With the epoch-making discoveries in medicine and the consequent advance in surgery the hospital came to be considered as a great curative agency rather than a mere charitable undertaking and motives other than religious obtained. Today, we treasure all the services of the past and recognize the hospital as the vivifying center from which radiates all public health activities and as a most necessary educational institution for the training of young men and women for this great work.

Appreciation of the problem, a vision of its possibilities, efficiency in administrative functioning: these are the needs of the modern hospital; to them Mr. Chapman is making a very distinct contribution.

MAURICE FRANCIS GRIFFIN.





PREFACE

The compilation of this manuscript has been prompted by a recognition that there is little that has been published on the subject. Journals serving the field have carried articles covering practically every phase of the work, but these articles have been fragmentary in their character, by reason of the fact that no article has attempted to cover the subject as a whole.

It is recognized that there may be differences of opinion as to the application of certain details recommended. It is the sincere belief, however, that the principles expounded are fundamentally sound, universal in their application and are in no sense controversial.

To those who have given unstintedly of their time in counsel, and to those who have furnished charts and illustrations, my thanks are tendered. Their aid has been a distinct contribution. My thanks are especially due to my Secretary, Miss Ethel E. Rosenberg, without whose devoted application the work would not have been possible.

In dedicating this volume to the Hospital Field, it is hoped that it will serve as a medium of establishing a basis for discussion of the fundamentals of efficient Hospital Operation.

FRANK E. CHAPMAN.

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INTRODUCTION

A REVIEW of literature impresses one forcibly with the fact that those engaged in the administration of hospitals cannot rely for guidance upon the recorded experience of others to the same extent that it is possible in other professions.

The paucity of literature on the subject of hospital administration has prompted the compilation of this volume. An attempt has been made to outline fundamental principles involved, and to discuss, in not too great detail, the application of these principles, using such concrete examples as are necessary to add clarity to the text.

The first institution for the care of the sick of which we have recorded evidence was built in the seventh century B. C. In terms of years, the difference between that institution and the general community hospital of today is not nearly so great as is the complete change in function and demands for service in the hospital of today as compared with the hospital of even fifty years ago.

Relatively speaking, very little change in the technique of hospital operation was made until about the middle of the nineteenth century. The reasons are manifold. Until comparatively recent time institutionalization of the sick was very limited. The history of early institutions shows them to be combination infirmaries and wayfarers' lodges with only incidental accommodations for the sick. These accommodations were generally limited to chronics. The early development of hospitals was primarily due to the necessity of providing for the care of the insane, and for the isolation of lepers. A major portion, in fact practically all of these developments, were under Church auspices, the few excep-

tions being under the control of the State. In the aggregate, however, the hospitalization of the civilian sick was comparatively small. The general use of hospitals by this group was retarded largely owing to the fact that medicine had not progressed to the point where it had established itself in the confidence of the people; its application was restricted to a limited few and hospitals did not have as a general thing even this meagre medical service; as a result the facilities were limited to extreme cases. In addition, by reason of failure to comply with what to us are fundamental laws of sanitation and hygiene, cross infections of the most virulent form were almost universal, so that hospitals were looked upon as death houses rather than as places for the alleviation of suffering and pain. With the acquirement of knowledge as to sepsis and asepsis, the rapid progress of medicine, and the development of scientific nursing service, in place of the unskilled though kindly service of the past, the hospital began to assume its rightful position in the communal health scheme.

Many other factors contribute, and contribute largely, to the necessity for a higher ratio of hospital beds to the total population than formerly existed. One of these factors is the change in the scheme of living in large centers of population, necessitating a decided reorganization of the methods of caring for the sick. Another and very great stimulus to an increasing institutionalization of the sick is the rapid development of the science of medicine to a point where the diagnostic and therapeutic facilities, absolutely necessary to the proper care of the sick, are found only in hospitals. This need has brought to hospitals a majority of cases of an obscure nature, and has almost automatically caused increasing numbers with practically every type of disease to seek the hospital for both diagnosis and treatment.

What then may seem to be a spectacular development of late years is but the natural development following an under-

standing of laws. A mass, an idea, or a development, once motivated, gathers momentum in its progress. Today the hospital's position in the health field entails obligations of service beyond the fondest imaginings of the administrators of a few years ago. To meet these obligations a complete evolution in administration has been necessary and an activity has been created the scope of which but few realize.

According to the most accurate statistics available, there are today approximately ten thousand hospitals and allied institutions in North America. These have a total bed capacity in excess of 750,000, rendering approximately 8,000,000 patient days' care per year. It is estimated that close to \$1,000,000,000 is expended annually in the operation of these institutions, and that approximately \$250,000,000 is annually spent in the development of new units of hospital service.

To this large field of human endeavor, to the increasing efficiency of its performance, and to the lightening of the burdens of its large army of workers, this volume is dedicated.

HOSPITAL ORGANIZATION AND
OPERATION



CHAPTER I

FUNCTION AND PRINCIPLES OF ORGANIZATION

"The hospital occupies a strategic mid-position and has open to it a great opportunity and a corresponding obligation, not as an institution for the salvage of human wreckage, but as a co-ordinator of activities—professional, economic and social—in their application upon the problems of health."

It is not the purpose of this volume to deal with any other phase of hospital operation than that pertaining to its internal activities. However, certain fundamental principles must of necessity be established, upon the acceptance of which is built the basic structure of the hospital's organization.

FUNCTION

A hospital in its broader aspect has three primary functions:

1. The care of the sick;
2. The teaching of disease;
3. The study of disease.

Only insofar as the institution accepts in a greater or lesser degree the obligation of this three-fold responsibility does it function in the true sense of the word as a community hospital. With the fulfillment of these functions, it naturally becomes the health center of the community it serves. From it should and must radiate all things having to do with communal health. It must furnish every known means for the scientific diagnosis and treatment of disease. Those entrusted with its administration must accept these obligations, which necessitate an intimate understanding of the problems of our social structure.

This definition of the function of the hospital draws a

sharp line of demarcation between the community hospital as such and the hospital developed primarily to serve some special interest. It is not intended to imply that the latter type does not render a valuable service and may not be efficient. In the final analysis, however, it is the hospital which accepts all of the obligations above enumerated that will be a stimulus to higher ideals of health administration, will lead to a greater development of the science of combating disease, and will contribute most to the betterment of the community in which it is located, as well as to the world at large.

One must not lose sight of the fact that a hospital is not an inert thing of brick and stone, but is an ideal of service. Even a factory or a hotel building converted into a hospital can be made efficient provided its administrative personnel is thoroughly imbued with the correct ideas and ideals of hospital service. It is true that there may be inefficiencies of operation in a plant not designed primarily for the service it is rendering, but if the ideal is there the end results will be commensurate.

If this premise be correct, it is evident that the administration of this intangible ideal requires a degree of thought and understanding of communal problems far beyond the administration of the physical or professional activities of the hospital alone. The complexities of its operation make difficult the application of a standardized measuring stick of efficiency. When one appreciates the fundamentality of the work, however, one realizes its worth and must strive for the attainment of that ideal service which is the goal of every real hospital.

PRINCIPLES OF ORGANIZATION

For some unexplainable reason the idea seems to prevail that the operation of a hospital differs from other activities of life, and that the same principles of organization cannot be applied. Such a point of view is ill-founded and does not

indicate an intimate understanding of the problems of hospital operation. Whether it is the operation of a manufacturing plant, a sales organization, or a hospital, the principles of administration are identical; it is only the application of detail that is different. The sooner hospitals accept a lesson from industry and apply those fundamentals that have been demonstrated as successful, the sooner will they become efficient in their performance, and the sooner will some of their grave present-day problems be solved.

CHART OF ORGANIZATION

Boards of trustees are selected as custodians of a public trust—an obligation demanding that they accept for the community they serve a full responsibility for and a control of that activity. If that board is to secure a maximum of result from that organization, unquestionably the first problem before it is the establishment of a definite line of procedure as to the operation of all of the organization's component units, and the establishment of the administrative officer's authority. There is no debating the statement that an organization without centralized responsibility cannot function correctly, and it is equally undebatable that the logical point of this centralized authority is the administrative officer of the institution.

The accompanying charts of various hospital organizations illustrate how some institutions have organized to permit of this centralized control. These charts are from hospitals of various sizes, ranging from ninety beds to four hundred beds. Among them are charts in which the principle expounded, in the opinion of the author, is incorrect.

BOARD OF TRUSTEES

It is not proposed to enter into details of organization of the board of trustees. Suffice it to say that the board of trustees of an institution, such as has herein been described

HOSPITAL ORGANIZATION

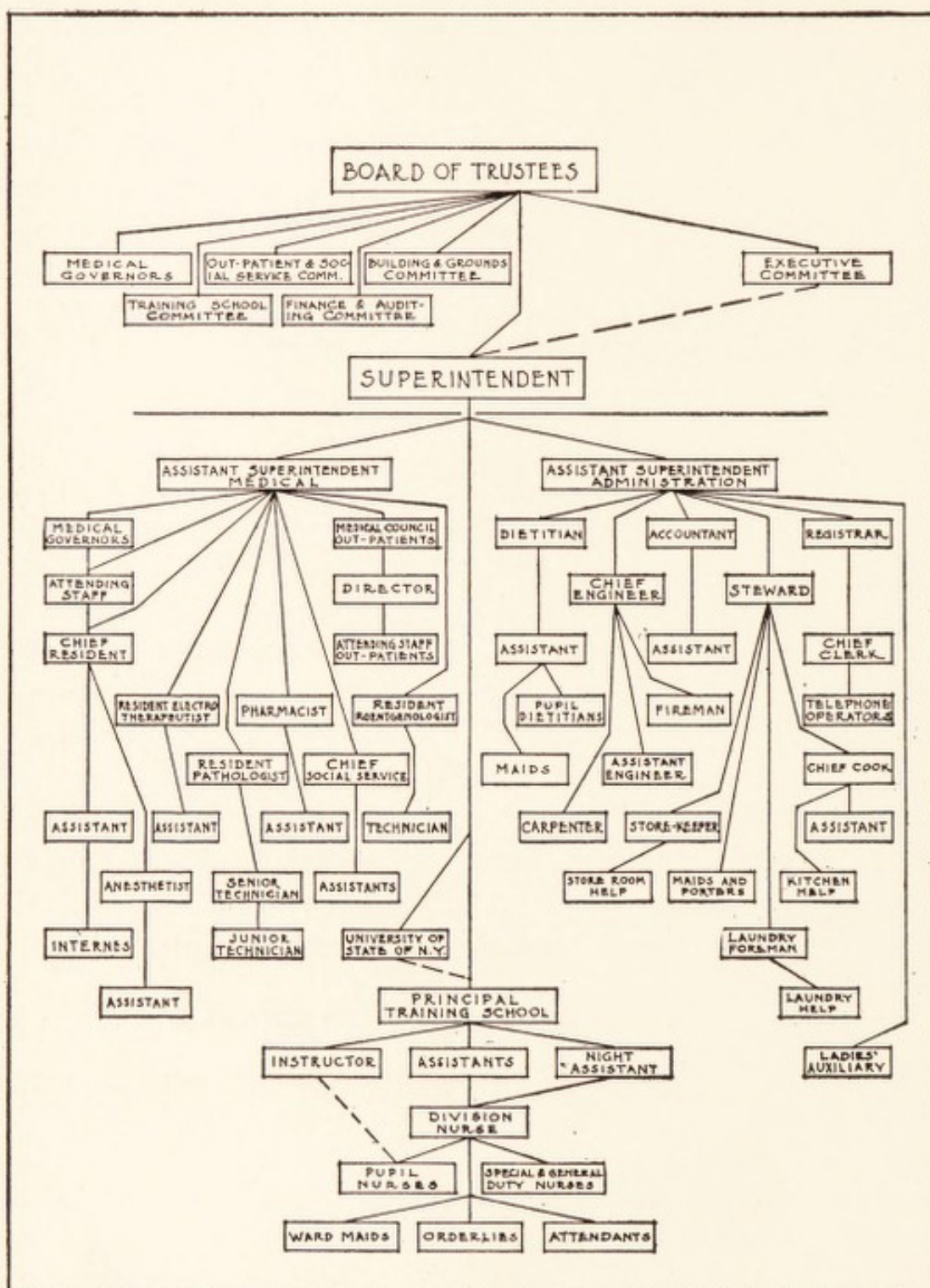


FIG. 1.—Indicating the organization of a large general hospital. The centralization of control is fundamentally sound. It is believed, however, that the grouping of departmental responsibility is not quite so sound. To illustrate: there is no official contact between the dietitian and the steward, notwithstanding that each has to do with the handling of foodstuffs. Further it is believed that the steward is responsible for too diversified an activity in an organization of this apparent size to produce a maximum of efficiency in each department.

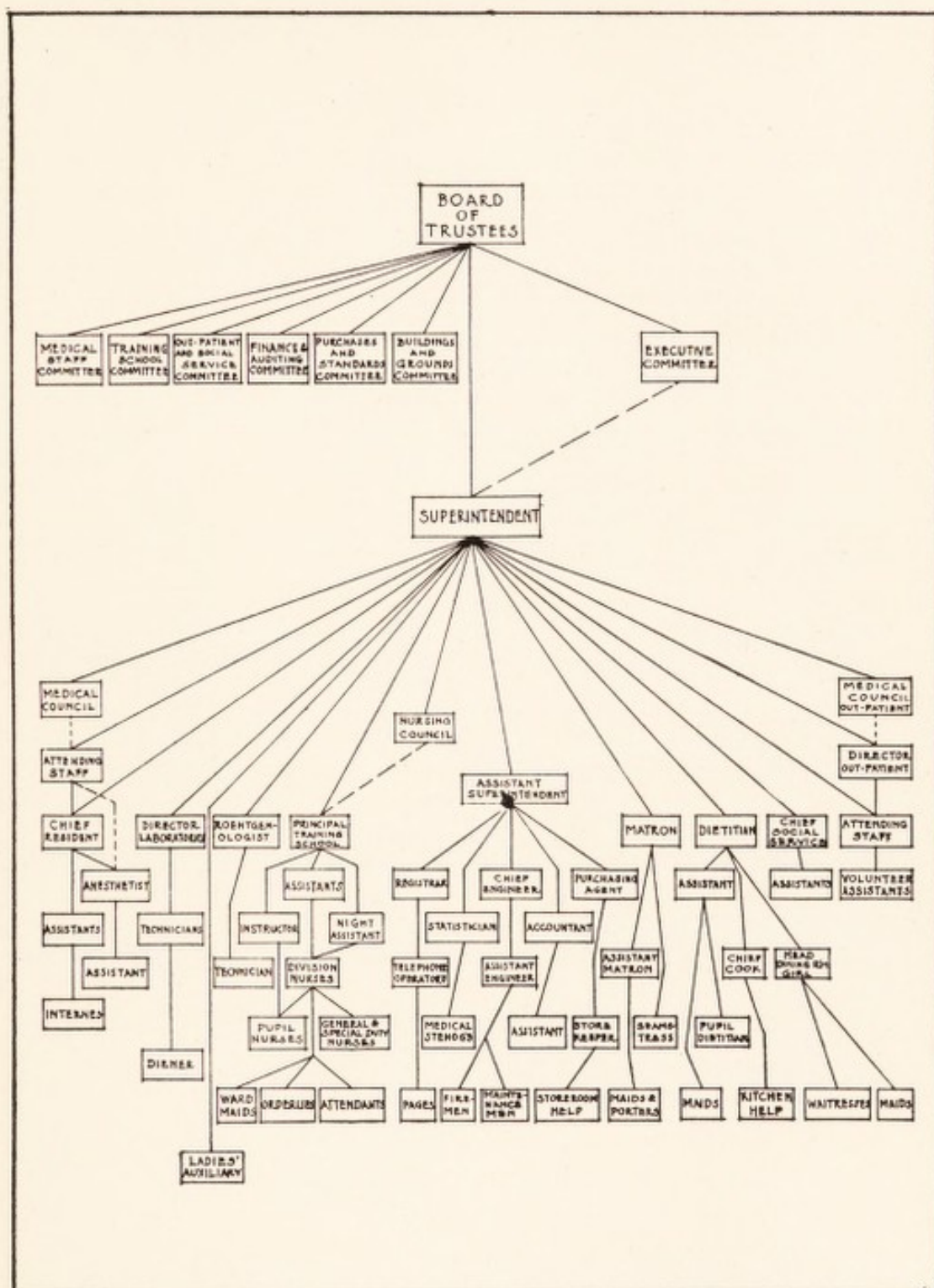


FIG. 2.—Attempt to visualize centralization of control with the division of departmental responsibility on a basis of actual performance of various activities. Attention is directed first: to provision for advisory groups in the form of the medical, out-patient and nursing councils, and second: to the fact that the assistant superintendent is definitely in charge of a departmental activity and but slightly superimposed over other department heads, assuming the position of ranking officer in the administrative group in the absence of the superintendent.

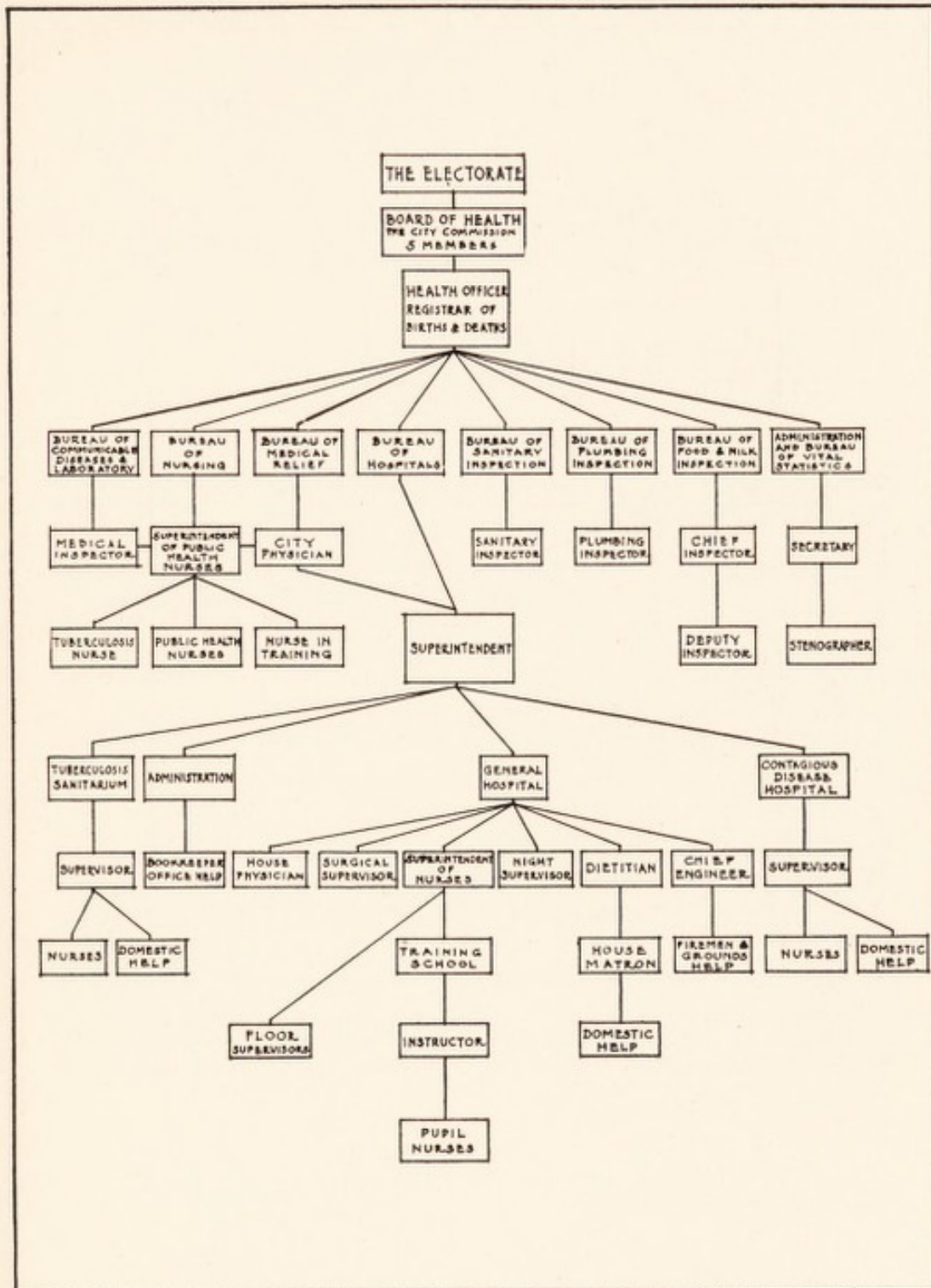


FIG. 4.—This is a chart of organization of the health activity of a community, carried to a conclusion only insofar as the hospital phase of the activity is concerned. It is impossible to determine the correctness or incorrectness of the chart without an intimate knowledge of conditions in the community, but there would appear to be a sound principle established.

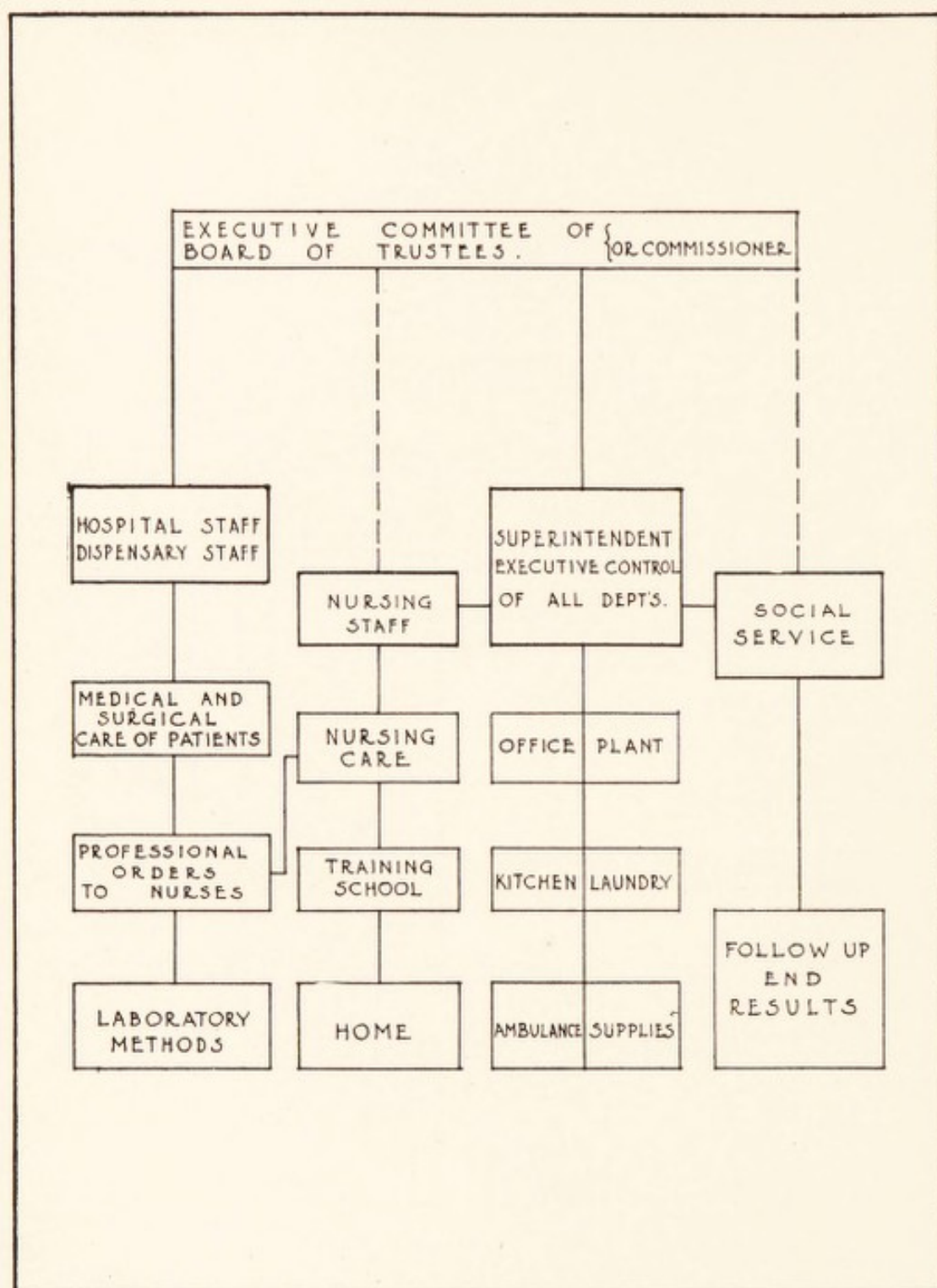


FIG. 5.—Absolutely unsound scheme of organization for efficient operation. An executive committee never functions in continuous administrative control. If there is a commissioner (who in reality is the administrative head), then the chart is not open to quite the same criticism, although it is in no sense complete in outlining basis functions of control and operation.

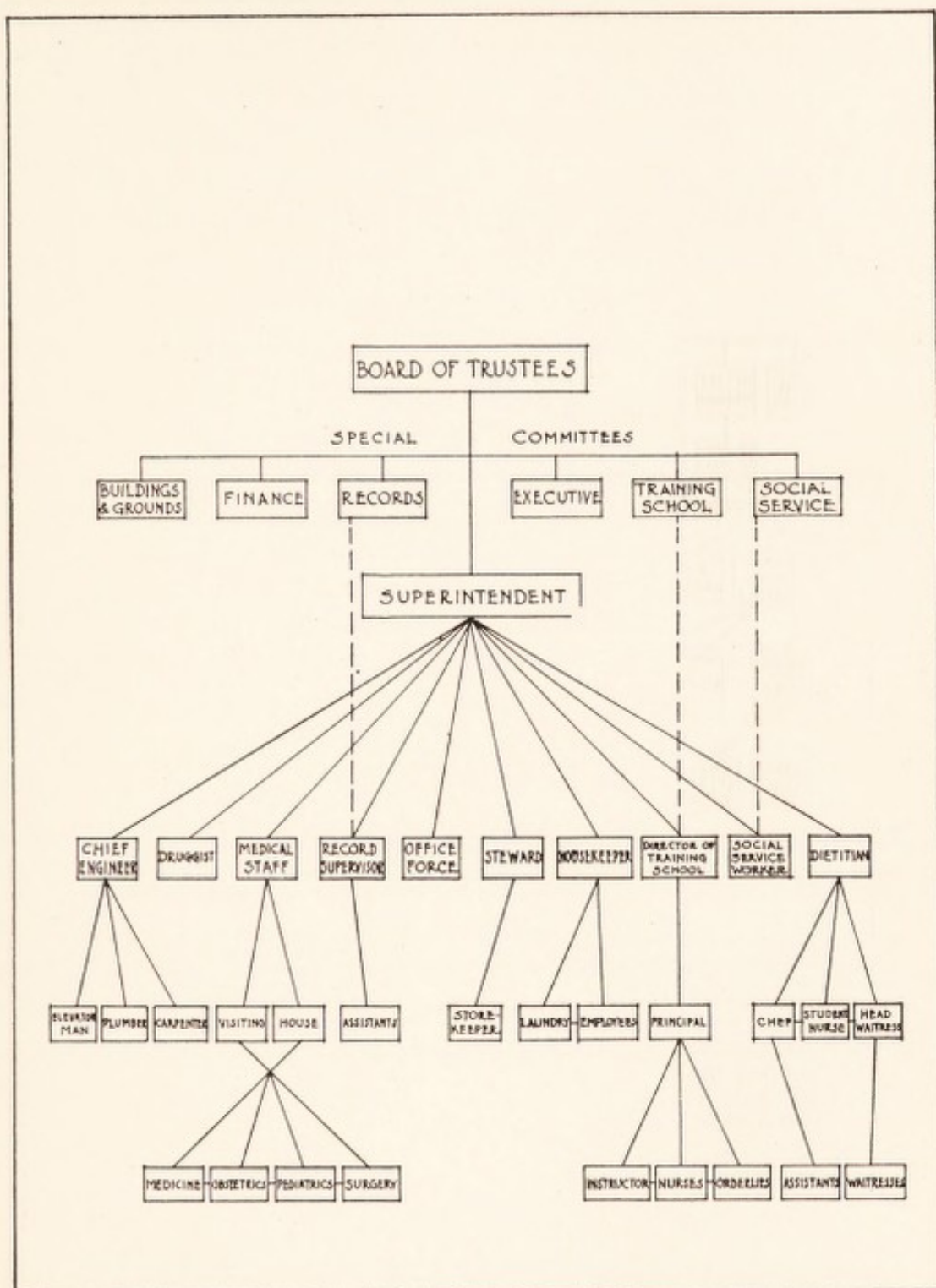


FIG. 6.—The adverse comment is that this organization chart offers contact between the operating personnel and the governing body through other channels than through the administrative officer. This is unsound. The general make-up of the chart and the principles it establishes are good.

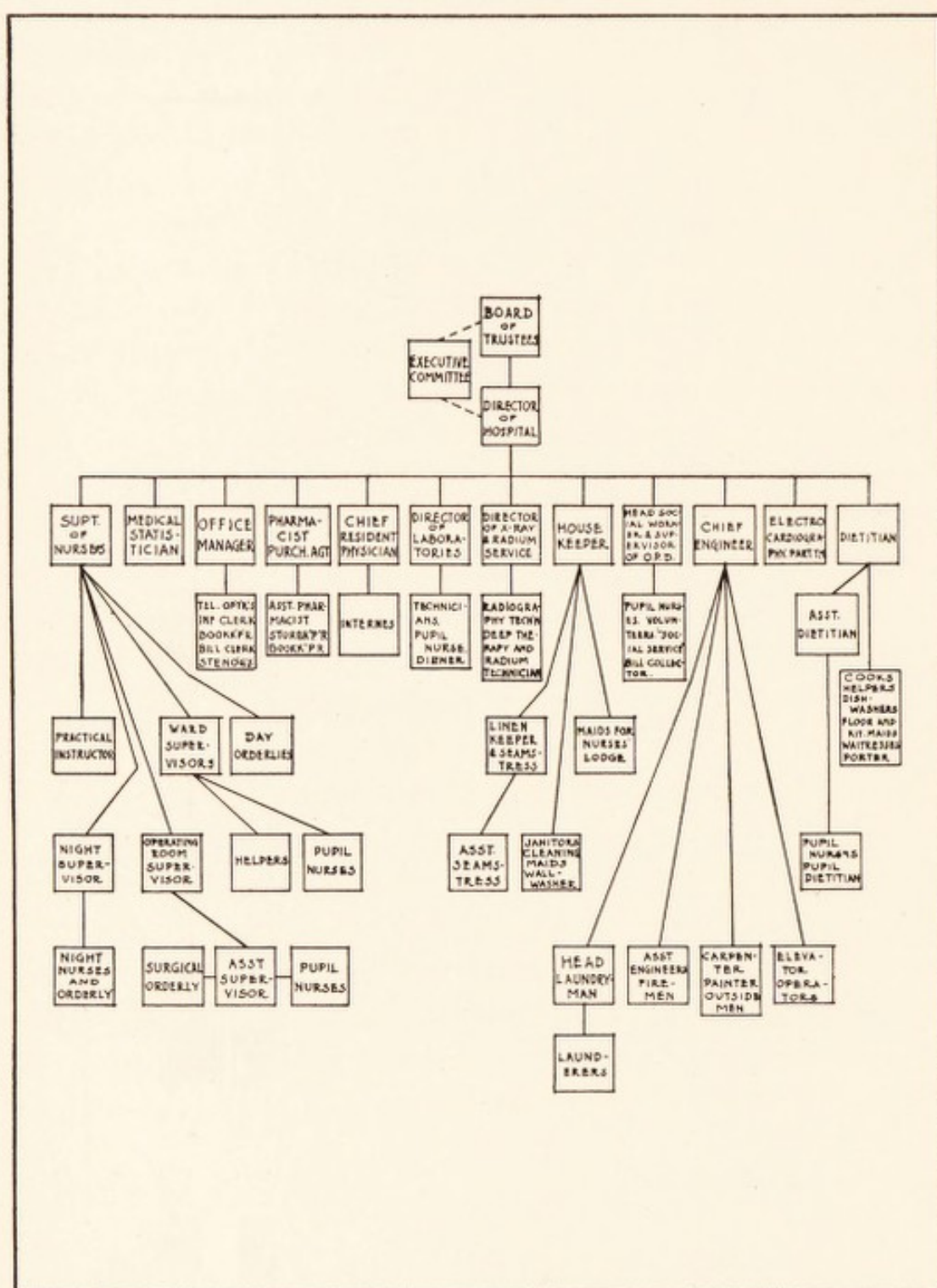


FIG. 7.—Another illustration of a good organization. Adverse comment may be made that the chart does not intimately correlate physical and professional activities, i. e., that it does not establish the status of the medical staff. This is a mistake.

must be a composite of practically every point of view that enters into our social and economic scheme. That board need not necessarily be large, but it should be representative and active—a board that will assume its responsibilities and will function along lines accepted as sound in other activities. To be specific, members of boards of trustees are in the main chosen because of their pre-eminent success in their respective fields of endeavor. It is necessary and to be expected that these men and women individually apply to the administration of their hospitals the same degree of proficiency and understanding of intimate problems that they apply to their own vocations. It is not expected that they be competent or inclined to delve into the details of administration, but it is expected that they bring to the organization they have created an inspiration of service and a clear understanding of fundamental principles, to the end that the service of the institution may be a realization of its ideals.

Function of Board.—The board of trustees in its relationship to the actual operating plant should, if it functions properly, be the policy-forming group (collaborating at all times with the operating personnel); should evolve and carry out a financial scheme that is sound; and should furnish the operating personnel that inspiration, that stimulus for better service which is at all times necessary and in so many instances lacking. Such stimulus and such inspiration can only come from a thorough understanding of the problem at hand.

SUPERINTENDENT

“An organization is but the lengthened shadow of one man.”

The title of superintendent is the one which seems to be the most popular in designating the administrative officer of a hospital, and therefore it will be used throughout. After all, the title is but incidental. The duties and the prerequi-

sites of the position are the essentials, and the principles involved are constant, irrespective of the title used.

It has been said that no institution is any stronger than the staff which mans it. It can with equal truth be said that no institution is stronger or broader in its vision of service than is its superintendent. No staff, no matter how potent, can function to the fullest degree without a close, sympathetic understanding of its problems by the administration. The inverse is equally true. There is, however, this distinct difference. Every activity of life if it is to attain the ideals of those who conceived it, and if it is to function thoroughly and efficiently in its line of endeavor, must have at its head a force that will give it impetus. While the operation of a hospital in its mechanics is a complex procedure at best, it is by far a minor part of the duties of the real superintendent. To this individual must be given a vision of service extending beyond the four walls of the institution. To him must be given an understanding of all the ramifications of the functions of a hospital and its close inter-relationships with other phases of the community's social scheme. To meet fully the obligations that a true superintendent should accept requires a diversified knowledge.

Qualifications.—To chart the activities of the superintendent is just as impossible as to chart the activities of the administrative officer of any industry. There are, however, certain fundamental requisites that are essential in the properly functioning superintendent and these requisites are herein enumerated.

Under a proper scheme of organization the superintendent should furnish advice and counsel to the board of trustees in the formulating of policies.

He should be the medium of expression of the board's point of view to the operating personnel and in turn should be competent to interpret the demands of service and desires

of the personnel to the board, in order that it may have an accurate picture of the needs of the operating units.

The superintendent should be an executive, able to plan and direct the activities of others.

He should have a professional point of view. A discussion of the relative merits of the medical, nurse or lay superintendent is not germane, but it is pertinent that the administrator keep uppermost in his mind the fact that hospitals are primarily organized for the purpose of rendering professional care to patients. That a sound knowledge of the laws of hygiene and sanitation is essential to the successful administration of a hospital is self-evident.

The superintendent should possess a mechanical sense, not necessarily the ability to differentiate between various types of vacuum feeds or to know the kind of pump to be purchased, but he should have a sufficient grasp of things mechanical to decide problems into which the rudiments of mechanics enter.

He should have a financial sense capable of interpreting balance sheets, cost figures and records of performance of a comparable nature.

By reason of the fact that the hospital in its operation uses practically every commodity that enters into our economic life, the superintendent must have a fairly thorough knowledge of at least the major items that are purchased. The purchasing of goods is becoming more and more a science. Efficient purchasing today is much more than mere placing of orders. It requires a study of market trends, a familiarity with general conditions that may affect prices, a knowledge of seasonal markets, an understanding of the theory of food deliveries, and an ability to judge when to buy. Therefore, the superintendent must possess a purchasing sense, whether he actually does the purchasing or simply supervises it.

The most precious commodity existent—human life—is dealt with in the administration of a hospital. The handling

of abnormal humanity and the solving of its problems, either directly or through representatives, requires a degree of social understanding recognized by few. It is not meant that the individual must be trained in a school of philanthropy or that he must have the ability to do a piece of medical-social case work. It does mean, however, that he must have a large share of the milk of human kindness and an inclination to temper judgments with this precious fluid, to the end that our hospitals may not be mechanical things, but rather that they may in all decisions of policy and operation keep uppermost the ideals of service.

These in no measure represent the total attributes of an efficient superintendent. To attempt to itemize these requirements would entail the listing of all of the varied activities of this officer and the establishment of a ratio of evaluation of individual activity to the activity as a whole. Such a ratio would not be constant in any two hospitals, to say nothing of attempting its use in evaluating the field at large.

It would appear that the formula prescribed is rather formidable, but, after all, insofar as one secures a one hundred per cent composite of the various elements incorporated above, to such an extent the degree of efficiency in hospital operation will be higher.

Establishment of Authority and Function.—Given such an individual, or as near that ideal as is humanly possible, there must be set up for his guidance a definite status and a definite course of procedure. The establishment of proper relations with the board of trustees is of primary importance. It is desired to reiterate certain points in order that they may be properly emphasized.

The superintendent should unquestionably be an ex-officio member of the board of trustees and a member of every committee of the board. Again, in industry one finds a comparable situation. The board of trustees of a large business would not presume to formulate operating policies without

the advice and counsel of its chief executive officer. Why, then, should the hospital, with its problems equally complex and their solutions fraught with equally great danger, allow its trustees to form policies without the advice and counsel of the superintendent?

Without any equivocation, the superintendent should, if he is to function to the greatest degree of efficiency, be a medium of interpretation of the wishes of the board of trustees to each of the component units of operation. He should in turn transmit to the board the point of view of the operating personnel.

The superintendent of a hospital should occupy exactly the same status as the general manager or the president of a manufacturing plant. The board of trustees is responsible for the formulation of all policies; for the development of a sound financial scheme of operation; for a careful analysis of all results of operation; and for the transmittal of instructions to the superintendent. The superintendent in turn is responsible to the board of trustees for the proper transmittal of instructions to his department heads and for the accurate interpretation to the board of the results of these policies along with the reactions of the operating heads. To crystallize the thought, he must, as executive officer, aid the board in the formulation of policies and he must be responsible to the board for carrying out these policies, both professional and physical. This is a principle that is not accepted to the fullest extent by very many hospitals, but if adopted and administered with the fundamentals thereof uppermost in mind, will produce a greater degree of efficiency than the loose, disconnected policy of organization now prevalent in a great many hospitals.

It is desired to emphasize further another fundamental principle. The hospital must begin to realize—the sooner the better—that each of its various working units must be construed as a unit of the composite plant, and not separately.

No institution can operate successfully, or rather with the greatest degree of efficiency, without complete articulation and coordination of all its working parts. The medical staff would be powerless without the nursing staff. The nursing staff would be helpless without the dietary. The dietary could not function without the mechanical. The mechanical, the dietary, the nursing and the medical would be in a deplorable condition with the housekeeping department failing to function. These statements being true—and there is no question but what they are—why should one department be superimposed upon another or why produce a scheme of organization for one that is not applicable to all? If the superintendent is efficient, has the ability to correlate the activities of the institution, and has been given the authority rightfully belonging to the position, there will result a greater degree of efficiency than could possibly be accomplished if, for example, the medical staff reported to the board of trustees direct; the nursing department reported to the nursing committee of the board; the housekeeping department to the ladies auxiliary, etc. Imagine such a situation existing in industry and the conditions which would result.

To function properly as an administrator is not easy. To be able to know with a fair degree of intimacy conditions existing in the activity administered and at the same time to avoid encumbering one's self with a volume of detail is rather a difficult task. One cannot be engrossed with the performance of detail and still maintain a vision of the whole problem. Nor can he render minor service in a large degree and keep his mind free to direct the activity as a whole. The process of thinking, requisite to these two types of work, is not at all compatible. If an administrator does detail work, either the detail or the directing will suffer in direct ratio to the importance given to one or the other of the activities.

The proper functioning of a superintendent along the lines suggested presupposes absolute authority over the entire

activity. This unification of control may be construed by some as autocratic, but, after all, is not a beneficent autocracy the most efficient method of government known today? In any event, absolute authority is much more efficient than the hybrid organization existent in a great many institutions.

Such a scheme presupposes that the administrative officer has sufficient breadth of vision to realize that the issuance of instructions without counsel cannot be productive of anything except harm. Therefore, this scheme of organization is advocated only with the understanding that there be established various groups advisory to the superintendent. It should be understood, however, that these groups are at all times only advisory in their function, not administrative. Such administrative procedures as may be devised by these groups are to be placed in operation only through instructions of the superintendent, and through no other source. Chief among these advisory groups may be enumerated the following:

MEDICAL COUNCIL

It is contemplated that this group approximate in activities that group sometimes designated as the executive committee of the attending staff. It is desirable that it be small in order that it may function easily. As a suggested personnel, the chief of the department of surgery, the chief of the department of medicine, the chief of one of the special medical departments, the chairman of the medical committee of the board of trustees, and the superintendent of the hospital would form an ideal body for the purpose designated.

Comment may be made that the inclusion in this group of a member of the board of trustees is inconsistent with previous comments as to the function of the board. It should be borne in mind that this medical council is *advisory only*; that its jurisdiction embraces by far the most important activity of the institution; that the far-reaching effects of

policies formulated are immeasurable. In such groups it is desirable to have a direct representative of the board of trustees, in order that that member may have first-hand information of the intimate discussions of medical policy and be a supporting medium of interpretation of conditions to the board of trustees. This phase of the hospital's activity is too important to allow the slightest possibility of misunderstanding on the part of the board of trustees as to actual working conditions.

To this group should be referred for discussion all medico-administrative problems, and the results of these discussions and decisions should be transmitted by the superintendent to the organization. The board of trustees should expect counsel on medical matters from this group. It is rightfully expected, and their recommendations should very largely govern the board of trustees in their selection of the medical staff. Without question, the superintendent should refer all applications for resident medical appointments to the council, its decisions to be the basis of appointments by the superintendent. To this group, for approval or disapproval, should be submitted all changes in nursing technique, all pre-operative and post-operative technique, all medical procedures, and similar problems.

NURSING COUNCIL

One must not overlook the fact that the department of nursing has a two-fold function: first, and at all times paramount, so far as the operating hospital is concerned, the nursing of patients and, second, if the hospital is to fulfill its function, the problem of the education of nurses and the consequent housing of a large group of young women. It is believed that this nursing council should include: (a) the superintendent of the hospital; (b) the principal of the school of nursing; (c) an educator (not necessarily a member of the board of trustees; in fact, more probably not a mem-

ber) who will bring to the deliberations of the council an educational point of view; (d) some individual, preferably a woman, who will be interested in the social side of the pupil nurse; and (e) one or two others, preferably women having different viewpoints, in order to have a representative group that will be of the utmost benefit to the department of nursing.

DEPARTMENTAL COUNCIL

Accepting as a fundamental principle of administration that a mutual understanding of a problem is always conducive to the most efficient solution, it is suggested that there be as a definite part of this scheme of operation a departmental council comprised of every department head in the institution. Meetings of this council, at which are to be brought up for discussion matters of mutual interest and of institutional policy, are to be presided over by the superintendent. Meetings of this group are indicated weekly, although in some institutions meetings every two weeks may be sufficient. The frequency of the meetings can best be determined by the individual institution. It is the character of the meeting that is important. A formal record should be kept of the proceedings of these meetings, and each member of the body, whether present or absent at meeting, should be given a copy of this record.

DEPARTMENTS OF A HOSPITAL

In ratio increasing with the size of the hospital is the importance of dividing its activities into departments. With this division it is to be assumed that all department heads shall be responsible to the superintendent; that each shall be held strictly responsible for results; and that care shall be taken to furnish each of them periodically with an analysis of the performance of his department containing constructive suggestions as to improvement.

Departmental Responsibility.—No matter what the basis of division into departments, no matter how large or small the activity divided, if the department head is to be held responsible for results he must be given the authority necessary to obtain those results. Appointment and dismissal of departmental personnel is unquestionably a departmental activity.

There must be established a well-defined line of contact as to instructions. Instructions pertaining to the nursing department should be given to the principal, those pertaining to the dietary department to the dietitian. In other words, departmental authority should be definitely fixed in the department head and departmental activities conducted through this channel only.

A list of of these departments follows, but no brief is held for its completeness. It is believed that no complete list can be made without a knowledge of the individual requirements of the institution. This list, however, is basic:

- Attending Medical Staff
- Resident Medical Staff
- X-ray Department
- Laboratories
- Pharmacy
- Nursing
- Social Service
- Dietary
- Administrative Office
- Mechanical
- Laundry
- Housekeeping
- Purchase and Issuance.

SUMMARIZATION

First of all let us accept as a statement of fact that the principles of organization are identical, irrespective of the

activity; that having set up a proper chart of organization, and secured the proper personnel, it is only necessary to follow accepted lines of procedure. No experiments are necessary; they are not only dangerous, but almost invariably expensive.

The keystone to the arch of efficient hospital operation is a properly qualified superintendent. It is the obligation of the board of trustees to secure such an individual; establish proper lines of authority and responsibility; and see that the policies are carried out. If these policies are sound, given an efficient hospital administrator, the hospital's performance will not only be more efficient but productive of a greater good to the community as a whole.

CHAPTER II

ADMINISTRATION

"Tell people what to do—not what not to do."

OFFICE OF THE SUPERINTENDENT

IN considering the position of superintendent one must visualize as a component part thereof the duties of the assistant superintendent or assistant superintendents. This office is the keystone to the entire organization's activity. It should be the nerve center of the hospital. The incumbent of the office should in no sense of the word be tied down to an undue extent with details of performance, but he should and must be in possession of all facts currently pertaining to the institution's activity. Machinery must be created to bring such facts to this office routinely and not as an incidental performance. Occurrences of an extraordinary nature must be reported, and reported promptly. The superintendent must never be placed in the inexcusable position of having extraordinary occurrences called to his attention for the first time by someone outside of the organization.

No attempt will be made to designate the duties of this office. Such a division or assignment is impracticable, in fact, impossible. The superintendent's contacts should be so intimate, so all-inclusive, as to present to him at all times a composite picture of the entire activity, although they should not be in such detail as to limit him in the performance of the larger duties of his office. Suffice it to say that, subject to the actions of the board of trustees, this office should be the medium of expression of all policies, the

source of inspiration for, and the court of appeal of, the vexing problems incident to an institution's operation.

ASSISTANT SUPERINTENDENT

If the institution is large enough to warrant the appointment of an assistant or assistant superintendents, it is essential that there be specific allocation of duties to the position. If there is any soundness in the scheme of departmentalization of an institution and the definite assignment of departmental authority and responsibility to various department heads, then there is no place in the scheme for the existence of an assistant superintendent *per se*, except insofar as he may be assigned specific departmental activities and become the ranking officer of the cabinet or departmental council in the event of the superintendent's absence. To carry this further, the appointment of a department head presupposes the superintendent's confidence in his ability to administer efficiently to the needs of that department. The scheme necessitates ease of contact between that department head and the superintendent to permit of the dissemination of information and the securing of instructions as to the solution of problems. Therefore, there is no logic in imposing barriers to militate against this contact between the superintendent and the department head.

An assistant superintendent is, of course, essential in a great many institutions. He should, however, be assigned a specific departmental activity, such as office manager, in charge of purchasing, in charge of physical care of buildings, in charge of resident staff, or duties of a comparable nature. In addition, he should assume charge of the institution as a whole in the absence of the superintendent. One may at first feel that there is an inconsistency in this arrangement, but a careful analysis will show the correctness of the principle involved. It is not desired in this scheme to minimize the importance of the assistant, to withdraw one iota of

authority or to limit the prerogatives of the position. The superintendent should at all times know that his assistants are fully conversant with the policies of each department. Department heads, in turn, must recognize the authority of the assistant, especially in the absence of the superintendent, but there should not be the necessity for the transmission of thought on a major departmental activity through a third person.

ROUNDS

Efficient administration of any activity demands an intimate knowledge of that activity. That knowledge cannot be obtained second-hand. It would be presumptuous to set down a schedule of rounds for the superintendent, but it is very emphatically stated that the administrative head of a hospital, or his immediate assistant, should make complete rounds of the institution regularly.

These rounds have a dual purpose. They give to the superintendent an intimate knowledge obtainable in no other way; and, equally as important, they maintain or improve the morale of his co-workers on the various units. The fact that the chief is interested in their work is an added incentive to good work.

HOUSE ORDERS

With a departmental council, such as has been outlined, with the allocation of specific duties to department heads, with a comprehension of the necessity for mutual understanding of each other's problems, duties and responsibilities, there immediately becomes necessary a mechanism for the transmission of instructions. It is essential that such mechanism be absolute and not subject to misinterpretation; that it be flexible and still retain that degree of completeness and correctness essential in all functioning rules and regulations.

Orders by word of mouth are subject at all times to mis-

interpretation. Such orders are easily forgotten, which is a condition which cannot be allowed to exist in orders affecting the vital performance of a single department or inter-departmental performance. It is therefore suggested that a scheme of written orders be developed. Bound printed orders are

<p>House Order No. 34, November 18th, 1921.</p> <p><u>Supplementing House Order No. 12,</u> <u>OPERATING ROOM CHARGES</u></p> <p>Office Principal Associate Director</p> <p>It will please be understood that on a secondary operating room service for the same patient continuously occupying a bed in the institution, that the operating room charge shall be fifty percent of the class charge for the primary performance. This is not effective where patients are discharged and re-admitted.</p> <p>DIRECTOR</p>	<p><i>Arthur P. Bailey</i> Associate Director <i>Harriette Old</i> Director of Social Service <i>Kathryn Dunn</i> Office <i>Mary Edwards</i> Principal</p>
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FIG. 8.—Example of house order. Note acknowledgments from interested Department Heads. Visualize the flexibility of such a system of house orders, and the exactness of their information.

subject to the very definite criticism that they are not easily corrected, and that shortly after a set of rules and regulations has been printed a certain number of them become obsolete. It is suggested, therefore, that this order system be developed in loose leaf form. Such a system is flexible to the greatest degree and permits of any order being cancelled or modified

by subsequent orders, without destroying the content of the order book as a whole.

An example of this system of house orders is shown herewith. The reverse side of the order provides a space for the signature of each department head to whom the order applies.

HANDLING OF PERSONNEL

The securing of proper personnel for the operation of a hospital is a difficult problem, and one that is not easy to solve. In hospitals there are many complications which do not exist in other activities and which militate against centralization of this work. Two schemes are outlined, the first, a plan almost universally adopted in large industrial plants but not very generally accepted in hospitals, and, the second, an older scheme that has not been entirely departed from in industry and one rather common in hospital practice.

Scheme A—Personnel Officer.—Several reasons exist for the introduction of a personnel officer into a plant employing large groups of people. It is a recognized fact that one of the primary reasons for the large turnover of employees in many organizations is that they were not equipped for the job for which they were hired. The cost of training a new worker has been computed in some activities and the decision reached that that cost is so great in terms of actual money and in terms of waste product that the necessity for a reduction of labor turnover is of paramount importance. It is recognized that everyone has not the ability to judge character and fitness for a given piece of work, and that special training is needed for the work.

Another reason for the growing demand for a personnel officer is that many activities have gone into welfare work for their employees, and there must be some one individual or group of individuals whose primary job it is to look after the best interests of the personnel of the institution.

Again, some department heads are too busily engaged in

the actual work of their department to warrant their energies being used in the securing of personnel. This is more especially true when obtaining workers is difficult.

These are only a few of the reasons for the introduction of a personnel officer. That he has been successful in industry and definitely proved his worth is not debatable.

How can such an individual be used in a hospital?

It is necessary at this point to reiterate the fundamental principle of departmental authority and control. The activity of a personnel officer must at all times conform entirely to the wishes of the department head. At no time should a personnel officer employ and pass on to a department head an individual who is not acceptable to that department head. While this is fundamental, there is this modification. There is no question but what a properly equipped personnel officer can select salaried personnel equally as well, if not better, than a department head.

There is the usual exception to the general rule, i. e., the attending medical staff, the resident medical staff, and the student nurses.

The assignment of this duty to a central point simplifies a great many problems. First, each individual coming into the service will be uniformly instructed in a general way as to the duties of his position, and will be informed as to the ideas and ideals of the administration. Second, the information record of employment is much more easily and completely obtained. Third, a social picture of the individual employed is secured which permits of an intelligible understanding of his social problems with the result that assistance is offered where it is needed. It is a sad commentary on our hospitals that while many of them have large social service departments, and expend untold energy in aiding those unfortunates who may contact with it medically, no effort is made to meet the many social problems in its own personnel.

It is, of course, necessary that the personnel officer be

qualified for the position he is to occupy. It is especially necessary that he have an understanding of, and a sympathy with, the problems of various departments.

Scheme B—Retention by Department Heads.—For the second scheme, in which the departmental personnel is employed by each department head, there is something to be said. It provides an initial personal contact that some deem essential. It is argued that it sets up an authority of control in the minds of the personnel that is not possible under the former scheme. There is no question, however, but what in many instances it fails to secure for the institution that type of personnel that could be secured by an intelligible application of certain principles by a trained personnel officer.

MEDICAL EXAMINATION OF EMPLOYEES

Hospitals are popularly supposed to preach by their example the gospel of better living. One wonders if in the handling of their personnel they really do so. Medical examination of personnel was devised with two points in view: first, the humanitarian, in order to provide efficient medical examination and knowledge of physical condition to a group of persons not having this service at their command; and by all odds a secondary consideration, the establishment of the physical condition of the individual in order to preclude industrial medical damage suits, or in other words, for the purpose of eliminating the physically unfit from certain activities. In several restricted activities there is a third reason, the protection of patrons or clientele of an activity such as the handling of foods, etc.

Most of our hospitals require a physical examination of their student nurses. Why this group should be selected and other groups disregarded is a moot question, but further than this few hospitals go. Whether all members of the nursing department should be examined, and whether they should be compelled to submit to certain routine inoculations, by

reason of the high incidence of contact with certain diseases, is debatable, but it is believed that all members of this group should be offered these inoculations if they so desire them.

In the dietary department there is no question whatever but that the same practices that are accepted as necessary to employment in hotels of the better class should be followed, and that the personnel should be known to be free from contagious and infectious disease, either chronic or acute. There should also be a routine inspection of sufficient thoroughness to insure a continuation of the condition of the individual at the time of employment.

In the mechanical department and in activities of a more or less hazardous nature, the physical fitness of the individual should unquestionably be ascertained at the time of employment.

Whether a medical examination and subsequent inspections should continue beyond these major groupings is a question that each hospital will have to answer for itself. Industry has clearly demonstrated that this welfare work pays in terms of dollars and cents through the conservation of productive energy, and has set aside relatively large budgets to carry on this work. It is believed that hospitals should think a little bit more along these lines.

RECORDING OF PERFORMANCE

In this section, for purposes of comparison, the author cannot refrain from constant reference to industry. In the banking field, in the manufacturing field, and in the sales field, concerted effort has been made to establish uniform practices, which are the combined result of the manifold experience of the various types of activities in their respective fields. This has been done notwithstanding the fact that these industries have been on a competitive basis, which does not permit of the free interchange of information such as is possible in the hospital field.

COMPLETENESS AND UNIFORMITY OF RECORDS

It can easily be seen, when one attempts to compare various hospital activities by their annual reports, that lack of uniformity and failure to record performance accurately militate against the securing of a maximum of information and a maximum of good from such analyses. The establishment of such uniformity in basic practices and completeness of recorded performance (keeping in mind at all times the varying needs of the individual institution) seems so sound as to warrant but little comment. It is a sad commentary on the hospitals of today that they, in the main, have not felt it necessary, as has industry, to establish on a fairly comparable basis complete systems of recording. It is true that the establishment of such a system of recording necessitates the maintenance of an accounting overhead in excess of that now expended by many hospitals, but is it not logical to believe that if industry has justified such an expenditure in order to place itself on an efficient basis, hospitals should also have comparable systems to permit them to function to the maximum of their ability?

Purpose of Records.—The recording of performance has a two-fold purpose: first, as the word implies, the setting down in permanent form of the actual performance—professional, financial or vital—in order that there may be a permanent record of what has been accomplished; second, a function by all odds the more important from an operating point of view, the establishment of a basis for the analysis of past performance and a basis for determining or predicting the demands of operation for the future. This latter function can be accomplished only with a proper system of recording.

STANDARDIZATION OF ACCOUNTING PROCEDURES

Several attempts have been made to establish uniform systems of hospital accounting. The first by William V. S.

Thorne was made in 1906 for the Presbyterian Hospital of New York, and the result of these studies published. Several revisions of the original publication have been made. This book and its revisions have been more or less generally read, resulting in the adoption of the system (either in toto or in part) in quite a few hospitals in the country. The Committee on Hospital Forms and Records of the American Hospital Association, of which the author was a co-worker, attempted to establish a uniform system of accounting and records. No attempt is made herein to debate the relative accuracy or the completeness of either of these efforts. In order to visualize what has been attempted, however, it is desired to call attention to them and suggest specific reference thereto.

The benefits to be derived from uniform accounting and the vast increase in the value of statistics made available can, in the opinion of the author, best be demonstrated by reference to reports compiled by the United Hospital Fund of the City of New York, and by the Welfare Federation of the City of Cleveland. By reason of their uniform accounting methods, it has been possible to present a composite picture of the performance of a number of hospitals in both of these communities so that the student of hospital performance has before him an understandable picture based on a constant of practice. The contrast between these reports and one drawn from annual reports of hospitals in various parts of the country is startling. When hospitals generally will accept some uniform practice of accounting of financial and vital performance, more valuable statistics will be produced, with the result that the intelligent study of the performance of others may be utilized as an aid in the solution of individual problems.

It is recognized that it is rather hard to uproot old practices. The report of the Committee on Hospital Forms and Records of the American Hospital Association has been criti-

cized by many as being radical in its recommendations and as necessitating the practical abandonment of existent systems. If hospital administrators will think far enough in advance of their own problems and will appreciate the ultimate good that can be secured by the presentation of comparable statistics, they will see the desirability, and, in fact, the necessity of a more uniform accounting practice.

For purposes of discussion the accounting problem of a hospital has been divided into three definite divisions:

- A. Accounting General.
- B. Accounting Patients.
- C. Record and Analysis.

It has been deemed advisable to illustrate graphically each procedure incident to: (1) the receipt and issuance of and the payment of bill for a certain commodity; (2) the admission, care and discharge of a number of patients; and (3) certain procedures incident to the routine analysis of performance. These examples are included in another chapter of the text with the suggestion that constant reference may be of value in obtaining an understanding of the text.

ACCOUNTING GENERAL

By accounting general is meant that portion of the financial records having to do with accounting for all capital assets, liabilities, receipts and expenditures, all compiled operating income (other than individual patients' accounts) and all compiled operating expense.

SYSTEM

The type of accounting systems adopted by the hospitals is of comparatively small moment if it is recognized that one must be devised which will be a true index of the institution's performance. In other words, the same fundamentals of accounting should apply in hospitals as in other organizations, and no matter how small the organization a complete

record by means of journal, cash book and ledger should be made. Any competent firm of accountants can set up a scheme of bookkeeping that will be simple and at the same time reveal all the necessary basic information. Standard accounting forms can be used, but the use of such forms will not serve to establish that uniformity of practice which is so desirable. Special forms designed for hospital operation, reflecting statistics that are desirable in an analysis of operation, are available and their use is suggested. Such forms permit an easy distribution of income and expense in the simplest manner possible.

CHART OF ACCOUNTS

In order that an accounting system may serve the two-fold purpose, that of recording and as a vehicle for the proper analysis of performance, it is of paramount importance that a chart of accounts be established. This chart should be in sufficient detail to permit of the segregation of current income and expense of comparable periods for the purpose of analysis. Examples of the chart of accounts of the American Hospital Association Committee on Forms and Records, and that of the system used by the United Hospitals of New York, are included herein. They are given in their entirety.

CHART OF ACCOUNTS OF THE UNITED HOSPITAL FUND OF NEW YORK

CURRENT INCOME OR REVENUE

HOSPITAL EARNINGS OR RECEIPTS FROM OPERATION

From Patients (Include Op. Room, X-Ray, Laboratory, etc.)

1 Private and Semi-Private Patients..... \$.....

(Include only that part of the Wages paid
by patients for Special Nurses which is
retained by the Hospital.)

2 Ward Patients (Put Public Charges in line

3).....

————— \$.....

From City

3	Public Charges, paid for by City.....	\$.....
4	Ambulance Account and Custodian.....	.....
		<hr/> \$.....

Miscellaneous (Exclude Op. Room, X-ray, etc., and charge above)

5	Board of Friends of Patients.....	\$.....
6	Ambulance Fees.....	.....
7	Scrap material sold.....	.....
8	Handling Charges on Supplies Sold.....	.....
9	.....	.....
		<hr/>
10	Total Hospital Earnings.....	<hr/> \$.....

Out-Patient Department

(Include Dispensary and Emergency Ward)

11	Fees from Out-Patients.....	\$.....
12	Drugs and Appliances.....	.....
		<hr/>
13	Total Earnings, Hospital and Out-Patient Dept.....	<hr/> \$.....

VOLUNTARY GIFTS FOR CURRENT EXPENSES

14	Contributions, Donations, Memberships, Dues (Exclude Legacies line 25).....	\$.....
15	United Hospital Fund of New York.....	.....
16	Federation Jewish Philanthropic Societies...	.....
17	Entertainments, Fairs, etc., Net Receipts...	.....
		<hr/>
18	Total Voluntary Gifts.....	<hr/>

INCOME FROM INVESTMENTS, RENTALS, FUNDS

(Applicable to Current Expenses)

20	Grand Total Current Income.....	.....
21	Grand Total Current Expenses.....	.....
		<hr/>

(page 3, line 19)

22	Excess of Current Income over Current Expense—Surplus.....	\$.....
23	Excess of Current Expenses over Current Income—Deficit.....	\$.....

- 24 Appropriations from some Reserve Fund to Meet Deficit..... \$.....
- 25 Legacies received during the Year..... \$.....
- Note.—All unrestricted legacies should be credited to some Reserve Fund Account and drawn on if necessary. Capital Funds used to meet Current Expenses should not be included in Current Income, but reported in line 24.
- 26 Remarks

CURRENT EXPENSES

All Expenses **incurred** for the Fiscal Year should be included whether paid or unpaid.

For Method of Figuring the cost of different branches of the service and the cost per patient per day see page 108 of "Hospital Accounting and Statistics," fourth edition.

HOSPITAL PROPER OPERATING EXPENSES

Before calculating the expenses for operating the Hospital Proper (lines 1 to 5) exclude all items in lines 11 to 25.

- 1 Administration..... \$.....
Officers, Clerks, Stationery, Postage, Printing, Report, Tel., etc.
- 2 Professional Care of Patients.....
Staff, Nurses, Orderlies, Drugs, Instruments, X-ray, Laboratory, etc.
Share of Social Service for Ward Patients.
Do not include wages paid by patients to Special Nurses.
- 3 Department Expenses.....
Ambulance, Housekeeping, Linen, Kitchen, Laundry, Provisions, etc.
(Also give here Total Cost Provisions \$....)
- 4 General House and Property Expenses.....
Fuel and Light, Ice, Ordinary Repairs, Furniture, Rent, Insurance, etc.
- 5 **Total Hospital Operating Expenses** \$.....
In dividing the Total Hospital Expenses between Private and Ward patients, be sure to assign to each its proper proportion of all the above expenses common to both, by careful estimate.
- 6 Total Operating Expenses for Private and Semi-Private Patients..... \$.....
- 7 **Total Operating Expenses for Ward Patients**.....

8	Sum of Items 6 and 7 should equal Item 5 above.....	\$.....
9	Daily Per Capita Cost of Private and Semi-Private Patients.....	.....
	Divide Total Cost, line 6, by Total Days (page 1, line 1, column 3)	
10	Daily Per Capita Cost of Ward Patients.....	.....
	Divide their Total Cost, line 7, by their Total Days (page 1, column 3, sum of lines 2, 3, 4)	
11	OUT-PATIENT DEPARTMENT EXPENSES	\$.....
	It is ESSENTIAL to include not only wages and supplies directly chargeable to Dispensary and Emergency Work, but also a PROPER PROPORTION of Administration, Pharmacy, Radiographs, Kitchen, Laundry, Nursing, House and other expenses, also share of Social Service for Out-Patients.	
12	Average Cost per Dispensary Visit....Cents	
	Divide line 11 by page 1, line 18, Total Visits.	
13	HOME DEPARTMENT —Maternity and other Home Cases.....	\$.....
14	CORPORATION EXPENSES	
	Salaries and Incidental Expenses (of those exclusively engaged with management of the Corporation and Pensions) \$.....	\$.....
15	Expenses for Raising Funds, for Income or Plant.....	.....
	Salaries, Commissions, Appeals, Postage, Advertising, Publicity, etc.	
16	Interest on Mortgages and Loans.....	.....
17	Taxes, Legal and Other Corporation Expenses.....	.....
18	Total Corporation Expenses.....	.....
19	Grand Total Current Expenses	\$.....
20	RESEARCH, SCIENTIFIC or EDUCATIONAL WORK	\$.....
	Not chargeable to above accounts. Please specify.	

CAPITAL EXPENDITURES

(See Schedule 3, page 7 and page 22, in "Hospital Accounting and Statistics.")

21	Land, Buildings, Extraordinary Repairs....	\$.....
22	Furniture and Fixtures.....	.....
23	Machinery, Tools, Apparatus, Instruments, etc.....	.....
24	Miscellaneous, Specify.....	.....
25	Total Capital Expenditures During the Year.....	\$.....

BALANCE SHEET

As of December 31, 19....

ASSETS

CAPITAL ASSETS

1	Hospital Properties and Equipment	
2	Sites and Grounds.....	\$.....
3	Buildings.....	.....
4	Furniture and Fixtures.....	.....
5	Machinery and Tools.....	.....
6	Apparatus and Instruments.....	.....
7	Ambulances, Live Stock, Etc.....	.....
	Miscellaneous, Specify.....	.....
8	Total (should equal Item 28).....	\$.....
9	Investments	
10	Mortgages Receivable.....	\$.....
11	Stocks and Bonds.....	.....
12	Real Estate not used for Institution.....	.....
	Other Investments.....	.....
13	Total Investments.....	.....
14	Total Capital Assets.....	\$.....

CURRENT ASSETS

15	Cash in Bank and on Hand.....	\$.....
16	Accounts Receivable.....	.....
17	Notes and Loans Receivable.....	.....
18	Prepaid or Unexpired Insurance.....	.....
19	General Material on Hand.....	.....
20	Other Current Assets, Specify.....	.....
21	Total Current Assets.....	\$.....

HOSPITAL ORGANIZATION

22	Grand Total Assets.....	\$.....
23	Deficit or Excess of Liabilities over Assets .....	.....
24	Total (should equal Item 40).....	\$.....

LIABILITIES

CAPITAL LIABILITIES

25	Capital Account (Hospital Properties and Equipment).....	\$.....
26	Reserve for Depreciation (if any).....	.....
27	Mortgages Payable on Hospital Property... ..	.....
28	Total should equal Item 8.....	\$.....
29	Endowment Funds.....	.....
30	Other Reserve Funds.....	.....
31	Total Capital Liabilities.....	\$.....

CURRENT LIABILITIES

32	Loans and Notes Payable.....	\$.....
33	Unpaid Wages.....	.....
34	Accounts Payable.....	.....
35	Advance Payments and over payments by Patients.....	.....
36	Other Liabilities.....	.....
37	Total Current Liabilities.....	\$.....
38	Grand Total Liabilities.....	\$.....
39	Surplus or Excess of Assets over Liabilities.....	.....
40	Total (Equal to Item 24).....	\$.....

CHART OF ACCOUNTS RECOMMENDED BY THE COMMITTEE ON FORMS AND RECORDS OF THE AMERICAN HOSPITAL ASSOCIATION AND ADOPTED BY THE ASSOCIATION IN 1921.

Your committee recognizes that it is impossible to set up a Chart of Accounts that will be applicable to all types and sizes of institutions. This is more especially true of the Corporation Income and Expense Accounts. It is recognized that every hospital has individual problems and therefore no great stress is laid upon the set-up of the Corporation Accounts.

The Operating Income and Expense Accounts are set up in an attempt to recognize the principle of departmental division of Income and Expense, and provide for the correlation of accounts so as to enable

the computation of per capita cost of the various services with the minimum amount of energy.

Hospital statistics as now published are not comparable, because there is no standard of recording. Many of the present systems, given publicity, do not seem logical to your committee. This chart of accounts and the appended forms and systems are submitted as a contribution to the very pertinent discussion of uniform hospital accounting.

Accounts in this chart are codified in the interests of brevity, in order that in the distribution of Income and Expense, distribution may be accomplished by numeral designation rather than by title. The "100" accounts represent Corporation Income; the "200" accounts represent Corporation Expense; the "300" accounts represent Operating Income; the "400," "500," etc., accounts represent Operating Expense; thus providing an elasticity of code that will give leeway to the large and small hospital, keeping in mind at all times the general classification of Administrative, Housekeeping, Laundry, etc.

100—CORPORATION

101—INCOME FROM ENDOWMENTS.

If the policy of the institution is to have separate endowment accounts for the various funds at their disposal, this can be accomplished by classifying from accounts 101 to whatever limit is desired, with the individual endowment and interest accounts.

102—MONEYS RECEIVED FOR CAPITAL EXPENDITURES.

This account to provide for all funds received that are currently expended for construction and that are not to figure in the permanent assets of the institution as money, but which are to be used for specific purposes.

103—RENTS.

104—SALE OF PROPERTY.

105—MISCELLANEOUS.

200—CORPORATION EXPENSE

201—SALARIES OF OFFICERS.

To include salary of Secretary, Treasurer and clerical assistants, engaged exclusively in corporation business.

202—EXPENSE OF RAISING FUNDS FOR CAPITAL EXPENDITURES.

203—INTEREST ON MORTGAGES OR LOANS.

204—MISCELLANEOUS.

It must be borne in mind that the *above accounts are not to be considered* in a computation of per capita cost of operation.

300—OPERATING ACCOUNTS

INCOME ACCOUNTS

300—OPERATING ACCOUNTS.

Alternate schemes of Operating Income accounts are submitted. Scheme No. 1 provides for the division between pay and part pay patients; Scheme No. 2 provides for the division between the various special services for which charges are made.

SCHEME No. 1.

301—BOARD OF PAY PATIENTS.

This account to include money received from all patients who pay cost of care, including charges to this class of patients for operating room, board of special nurses, laboratory, and all other special charges.

302—BOARD OF PART-PAY PATIENTS.

The same classification as 301, except that the moneys are received from part-pay patients, who pay only part of the cost of their care.

303—ENDOWMENT EARNINGS.

This account is intended to represent moneys available for operation, resulting from earnings from endowments of the institution.

304—SUBSIDIES.

This account is to include moneys received from Community Chests, Governmental Subsidies, etc. All moneys received on a per diem basis should be accounted for under accounts number 301 or 302.

305—RECEIPTS FROM DONATIONS.

This account to include current donations made direct to the hospital and not from an appeal through a public agency. It is recommended that a monetary value be placed on all donations of commodities and that such sum be credited this account.

306—MISCELLANEOUS RECEIPTS.

Credit to this account all receipts not specifically provided for.

Total Hospital Receipts

307—RECEIPTS FROM THE OUT-PATIENT DEPARTMENT.

Credit to this account all moneys received from the operation of the out-patient department.

Total Receipts

SCHEME No. 2.

301—BOARD OF PATIENTS.

This account is to include all moneys received from board of patients.

302—Operating Room.

303—Delivery Room.

304—Emergency Service.

305—Anesthetics.

306—Board of Special Nurses.

307—X-Ray.

308—Laboratory.

309—Drugs.

310—Dressings.

311—Telephone and Telegraph.

312—Endowment Earnings.

313—Subsidies.

314—Receipts from Donations.

315—Miscellaneous Receipts.

Total Hospital Receipts

316—Receipts from Out-Patient Department.

Total Receipts

NOTE.—The comments in typical accounts in Scheme No. 1 are applicable to Scheme No. 2. The other subdivision accounts are self-explanatory.

400-500—OPERATING EXPENSE**Administrative****401—SALARIES.**

To include salary of Superintendent, Assistant Superintendent, office attaches, telephone operators and all engaged in strictly administrative work.

402—OFFICE SUPPLIES AND POSTAGE.

To include all supplies used for office purposes, including postage, stationery, and printing, but not to include medical forms.

403—TELEPHONE AND TELEGRAPH.

To include all telephone rentals, long distance calls, telegrams, and charges of a like nature.

404—INSURANCE AND BONDS.

To include all surety bonds, liability insurance, and fire insurance; all to be proportioned monthly.

405—MISCELLANEOUS.

To include all expenses of administration not included under specific heads.

Total Administrative.

Housekeeping**411—SALARIES.**

To include salary of matron or housekeeper, assistants, porters, scrub women, and others engaged in housekeeping services in the hospital proper.

412—SUPPLIES.

To include cost of soap, scouring powders, mops, scrub pails, wringers, toilet paper, paper towels, and all cleaning materials.

413—CLOTHING AND BEDDING.

To include all linen, bedding, mattresses, pillows, uniforms for employees (exclusive of nurses' uniforms), and other items of similar nature used in the operation of the institution.

414—MISCELLANEOUS.

To include all expenses of housekeeping department not included under specific heads.

Total Housekeeping.

Laundry**421—SALARIES.**

To include salaries of head laundryman and all employees used exclusively for laundry service, including the salaries of seamstresses, and of individuals used in delivering laundry from the laundry to the hospital proper.

422—SUPPLIES.

To include the cost of all supplies used in the laundry, exclusive of repair charges. Credit to be given this department monthly by journal entry for chip soap, etc., used for other purposes.

423—MISCELLANEOUS.

To include all charges not included under other headings.
Total Laundry.

Heat, Light and Power**431—SALARIES.**

To include salaries of chief engineer, engineers, firemen, oilers, and all boiler-room employees exclusive of maintenance employees.

432—FUEL.

To include the cost of fuel used for either heating or power purposes.

433—OIL AND WASTE.

This account is self-explanatory.

434—LIGHT AND POWER.

In the event of the purchase of light and power, this account is to be charged.

435—DISPOSAL OF RUBBISH.

To include the cost of hauling ashes, disposal of rubbish, garbage, etc.

436—MISCELLANEOUS.

This account to include items not chargeable under other headings.
Total Heat, Light and Power.

Maintenance and Repair**441—SALARIES.**

To include the salaries of the maintenance men, electricians, plumbers, carpenters, painters, etc.

442—SUPPLIES.

To include all items of supplies incident to maintenance and repair, and extra parts purchased for renewals.
Total Maintenance and Repair.

Maintenance of Grounds**451—SALARIES.**

To include cost of yard men, gardeners, farmers, watchmen, etc.

452—SUPPLIES.

To include cost of all supplies, seed, loam, fertilizer, etc.
Total Maintenance of Grounds.

Nurses' Home**461—SALARIES.**

To include salaries of matron, house mothers, maids, porters, etc., whose services are used exclusively in the care of the Home. In the event that there are attaches in the institution whose performance is dual, pro rata amount can be charged to this account.

462—SUPPLIES.

To include supplies incident to the operation of the Nurses' Home.
Total Nurses' Home.

Garage**471—SALARIES.**

To include salaries of chauffeurs, mechanics, etc.

472—SUPPLIES.

To include gasoline, lubricants, tires, etc.

473—REPAIRS.

To include extraordinary repairs not made by hospital personnel.
Total Garage.

PROFESSIONAL CARE OF PATIENTS

Nursing

481—SALARIES.

To include salaries of officers and head nurses, principal of school, assistants, instructors and head nurses in charge of various floors.

482—SALARIES OF GRADUATE NURSES ON GENERAL DUTY.

Account is self-explanatory.

483—ALLOWANCE TO STUDENT NURSES.

Account is self-explanatory.

484—SALARIES OF ATTENDANTS AND ORDERLIES.

This is to include salaries of orderlies, attendants, ward assistants and others under the direction of the Principal of the School of Nursing or Directress of Nursing and not classified above.

485—UNIFORMS AND TEXTBOOKS.

This account is self-explanatory.

486—SPECIAL COURSES AND LECTURES.

To include any items chargeable to the department of nursing for special work done, such as special courses in massage, invalid occupation, etc.

487—SUPPLIES.

To include all expenses incident to stationery, supplies, circulars, advertising and expenses of a like nature.

Total Nursing.

Pharmacy

491—SALARIES.

To include salaries of pharmacist, assistant pharmacist and all drug room attaches.

492—DRUGS.

This account is self-explanatory.

493—PHARMACY SUPPLIES.

This account is self-explanatory.

Total Pharmacy.

Medical and Surgical Supplies

501—INSTRUMENTS.

This account is self-explanatory.

502—SUPPLIES.

To include the cost of gauze, adhesive, etc.

503—MISCELLANEOUS.

Total Medical and Surgical Supplies.

Medical Services

511—SALARIES.

To include salaries of medical officers, residents, part-time residents, assistant residents, internes, etc.

512—SALARIES OF MEDICAL RECORD CLERKS, ETC.

513—SUPPLIES.

To include cost of medical record forms, etc.

Total Medical Services.

Anesthesia**521—SALARIES.**

To include salaries of anesthetists.

522—SUPPLIES.

To include anesthesia material, new apparatus (not including capital charges), and all supplies used.

Total Anesthesia.

X-Ray**531—FEES.**

This account to include salaries or fees paid to roentgenologist.

532—SALARIES.

To include salaries paid to technicians, attaches, etc.

533—SUPPLIES.

To include cost of X-ray plates, etc.

534—MISCELLANEOUS.

To include all items not properly chargeable to other headings of this account.

Total X-ray.

Special Therapy

(This account may be further subdivided to meet individual needs.)

541—SALARIES.

To include salaries of special therapists and attendants.

542—SUPPLIES.

Total Special Therapy.

Laboratory**551—SALARIES.**

To include salaries of head of laboratory, technicians, and all attaches of the department.

552—SUPPLIES.

To include cost of chemicals, laboratory supplies and other expenses of a like nature.

553—MISCELLANEOUS.

To include all items not properly chargeable to other headings of this account.

Total Laboratory.

TOTAL PROFESSIONAL CARE OF PATIENTS.

Commissary**561—SALARIES.**

To include salary of Purchasing Agent, storekeepers, clerks, storeroom helpers, etc.

562—SUPPLIES.

To include such supplies as are used in storeroom activity.

Total Commissary.

Dietary**571—SALARIES.**

To include salaries of dietitian, assistants, cooks, kitchen help, diet kitchen maids, waitresses, and all attaches of the dietary department.

572—SUPPLIES.

To include the cost of china, table linen, cooking utensils, and all supplies of a like nature.

573—FOOD.

To include the cost of all foodstuffs, including transportation cost of such foodstuffs.

574—MISCELLANEOUS.

To include all items not properly chargeable to other headings of this account.

Total Dietary.

Social Service Department**581—SALARIES.**

To include salaries of social workers, clerical assistants, etc.

582—RELIEF ACCOUNTS.

To include all moneys expended for relief.

583—TRANSPORTATION.

To include carfare of workers, etc.

584—APPARATUS.

To include cost of glasses, braces, and other apparatus furnished.

585—MISCELLANEOUS.

Total Social Service Department.

TOTAL HOSPITAL OPERATING EXPENSE.

Out-Patient Department**591—SALARIES.**

(This may be enlarged to designate separate accounts for the various clinics.)

592—DRUGS.**593—SUPPLIES.****594—MISCELLANEOUS.**

Total Out-Patient Department.

GRAND TOTAL INSTITUTIONAL OPERATING EXPENSE.

NOTE.—In computing average per capita per diem cost, divide the total number of "hospital days treatment" given, into the total "Hospital Operating Expense."

In computing average cost per visit to the Out-Patient Department, divide the "total number of visits" into the "total Out-Patient Department Operating Expense."

No thought is entertained that either of these charts of accounts can be applied literally to all hospitals. Local conditions requiring either the inclusion or the elimination of certain accounts must govern. The fundamental principle of these subdivisions of income and expense is the point to be emphasized. As a result of establishing such a chart of accounts and adhering to it, there will be created in the course of time accurate statistics based upon a constant of performance which will be of much greater value than any produced by the indiscriminate accounting so prevalent in institutions today.

Another very definite advantage of this system is that the use of such a chart of accounts segregates departmental expense. This is particularly true where the form suggested by the American Hospital Association Committee on Forms and Records is adopted. By using this form a cost per patient per day or any other unit cost can be computed with a minimum effort. To illustrate specifically, there is automatically totaled, by the use of this chart, the cost of the housekeeping department, such as salaries, supplies and similar items; in a like manner the heat, light and power, maintenance and repairs, dietary and nursing costs are totaled. Such segregation of expense is essential to intelligent operations as it is only in this way that a detailed analysis of performance can be made.

BUDGET SYSTEM

"A budget system is nothing more nor less than an orderly procedure which requires a constant application of the best known principles of business conduct in the financial affairs of an activity, with the accompanying requisite of a continuous endeavor to keep these activities alive in the acts of the individuals charged with the operation of the system."

The foregoing definition is an excerpt from the report of the Director of the Budget of the United States Government made to Congress at the end of the first period of operation of the budget; it sets down very concretely the basic principles of a budget system. It is a specific statement of a theory that is as old as history, i. e., that nothing worth while is attained that is not planned. A budget system is nothing more nor less than a system set up to furnish guideposts in the scheme of finance of the hospital. Its efficient operation is predicated entirely upon the zeal and ability that are displayed in its preparation, and the sincere desire to gain knowledge by a study of its results.

The results of operation under a budget system may not be

entirely satisfactory the first or second year. It must be realized that experience alone will permit of that close approximation of income and analysis of expense needs that are the goal for which to strive. The proper preparation of a budget system is predicated upon first-hand, accurate data of income, expense and vital performance. Its preparation is further predicated upon the establishment and adherence to a chart of accounts for both income and expense and upon the accurate, constant and uniform recording of vital performance of the institution.

For the new hospital the mechanism of establishing a budget is easy. The only difficulty is the lack of a record of past performance. One of two courses is open:

- A. To set up records, but not to prepare a budget until the second year, or
- B. To build up a budget based on an analysis of performance of other institutions of similar size and type.

The latter plan is preferable. The new hospital should not put off the preparation of a budget. It may not be satisfactory the first year, but its preparation and a study of it during the year add just that much to the experience which must be gained before a successful budget can be originated.

For the hospital that has been in operation for a period of years, the preparation of a budget is much simpler, provided there has been a uniform method of recording income and expense, and also an accurate recording of vital performance.

The mechanism of either hospital in the preparation of a budget is practically identical, the only difference being that because of the lack of information the new hospital must depend upon estimation of needs without the benefit of a record of past performance to a greater degree than the hospital that has been in operation.

The *modus operandi* in the preparation of a budget is as

follows: first, there must be determined definite policies of operation. Is the hospital during the coming year to undertake a new piece of work or the enlargement of existing pieces of work? Are there to be any salary increases? If so, what? Are there to be any major changes in the physical plant which will be chargeable to operation? If so, what? What is the trend of the market as compared with previous or present periods? In other words, will the purchasing of commodities be on a more favorable or less favorable basis, and to what degree?

Before a single computation is made of the expense or the income accounts the policy of the budget must be determined, and this policy followed in their preparation.

Computation of Income Accounts.—Estimating the income of a hospital is not particularly difficult; certainly no more difficult than estimating the sales of an industrial plant. The hospital knows, or should know, the approximate expectancy of the demand for its services. It knows the amount of those services that is available for its clientele. It knows the charge that it is to make for those services. It knows, or should know, the approximate loss from uncollected accounts. Given these constants of computation, the accumulation of totals is but a mathematical problem.

To illustrate, a hospital has a certain number of beds available at a certain rate per bed per day. It has determined that these beds will be occupied 75 per cent of the time. The calculation is as follows: the number of beds times 75 per cent times 365 days times the rate per day per bed. To this must be added operating room charges, charges for board of special nurses and any miscellaneous items for which it may be the policy of the hospital to charge. As an illustration, it can be determined very easily what percentage of patients in the hospital will use the operating room. The calculation is simply this: the number of beds times the per-

centage of occupancy for surgical cases multiplied by the number of times the bed is occupied by a new patient, times the rate for the operating room. In order to compute the second to the last figure, if the average stay in the hospital for surgical cases is fifteen days, there will be approximately two patients per month, or twenty-four patients per year, in each surgical bed occupied. An example of the computation of income for a single nursing unit is shown.

COMPUTATION OF EARNINGS		
WARD A		
14 Private Rooms @ \$7.50—85% occupancy . . .		\$32,576.25
20 Two-Bed Rooms @ \$5.00—85% occupancy . . .		31,025.00
9 Four-Bed Rooms @ \$4.00—85% occupancy . . .		11,169.00
Operating Room Private $14 \times 2 \times 12 \times 85\% \times$ \$20.00		5,712.00
Operating Room Semi-Private $29 \times 2 \times 12 \times 85\%$ $\times \$15.00$		7,904.00
Special Nurses		8,500.00
Total Income Ward A		\$96,886.25

FIG. 9.—This formula may be applied to each of the nursing units and the total institutional income budget very easily computed therefrom.

Having computed the income for the various facilities in the hospital and added thereto the miscellaneous income incident to the operation of these beds, there is immediately available an income figure that will become increasingly accurate as the hospital goes on in the operation of a budget system, the knowledge of which will permit of an assignment of expense needs in proportion to the income developed. In other words, the hospital will know what its income is and can cut its expense needs to fit the cloth of income; or failing to do this it can make preparation in advance to meet a deficit that is bound to accrue when expense exceeds income.

To this earned income can of course be added subsidies

in the way of donations, endowment earnings, community chest subsidies, etc.

Computation of Expense Budget.—An expense budget cannot be accumulated *en masse* any more than can an income budget. Assuming for the purpose of discussion that one is working under the chart of accounts adopted by the American Hospital Association, the first account to be considered is the 401 account—administrative salaries. This account should be very definitely detailed, first determining the number of individuals whose salaries are properly chargeable to this account, establishing the rate of pay that they are to receive, accumulating this total and setting it up as the expense need for the account. Then one proceeds to the next account, the 402 account, following a like method and then to the 403, 404 and 405 accounts. Having made these computations for all the administrative accounts, there is accumulated the total administrative expense demand. The same procedure should then be followed in each of the groups in the chart of accounts.

The next step is the accumulation of all of these group figures into a total expense budget.

The recapitulation of the expense budget and the income budget will immediately produce an idea of the relative financial status of the institution at the end of the year and will be a basis to work upon in conducting the financial affairs of the institution.

Detail of Preparation.—There are two general divisions of expense items: payroll expense and commodity expense. The preparation of the budget must analyze in detail these two groups before accurate amounts can be placed to any one account.

As an illustration of how the personnel budget may be drawn up, there is inserted herein a detailed prepared budget for the dietary department of an institution of two hundred and fifty beds. The rate of compensation naturally is left

blank, but the principle is illustrated very clearly. The purpose of presenting this table is to call attention to the necessity of a careful check each month to insure that not in excess

DIETARY	
471-A Dietitian.....	4
B Assistant dietitian.....	4
C Steward.....	3
D Chief cook.....	4
E Assistant cook.....	3
F Vegetable cook.....	3
G Pastry cook.....	4
H Night cook.....	3
I Pot washer.....	3
J Vegetable maid.....	4
K Porter.....	3
L Bus boy.....	3
M Dining room maid employees.....	3
N Serving maid.....	4
O Assistant serving maid.....	4
P Dining room maid nurses.....	4
Q Dish scraper.....	3
R 2 waitresses.....	4
S 4 waitresses.....	3
T 2 dishwashers.....	3
U Silver maid.....	3
V 2 cart girls.....	3
W 1 cart girl.....	4
X 1 diet kitchen maid.....	4
Y 1 diet kitchen maid.....	4
Z 6 diet kitchen maids.....	3
Z1 1 serving maid.....	4
Z2 1 cleaner.....	3
39 persons	

FIG. 10.—This illustrates not only the method of computing salary budget, but also illustrates method of codifying various positions in each department to facilitate check of budget and payroll.

of this number of people are employed in this department or in case of an emergency that there will be a compensating saving in ensuing months to offset the budgetary excess.

The same policy can be adopted in the commodity accounts. Control of commodity purchases is not quite so easy, but it can be done with the right kind of effort. There is

ACCOUNT NO. 852

DAILY DISBURSEMENT RECORD

MONTHLY ALLOWANCE

825.00

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
DAY	DAILY	CUM.	DAILY	CUM.	DAILY	CUM.						
1	63.70											
2												
3												
4					3.32							
5			4.75	57.75	4.00	7.32						
6				6.60	64.35	5.00	12.32					
7							27.89					
8	42.42	106.12										
9			2.50	7.25			13.50	41.39				
10							45.91	122.47				
11							70.95	183.42				
12												
13												
14			11.00	18.25		10.00	22.32					
15					10.20	71.55						
16			60.11	78.36	17.50	92.05						
17	58.00	164.12					16.80	190.92	97.48			
18	12.58	177.70					26.15	227.07	59.00	126.48	82	183.94
19							115.42	342.49	2.86	159.33	8.75	192.69
20	135.20	312.90										
21			209.48	288.84	55.85	147.90						
22					6.00	153.90			26.85	196.18		
23							10.00	352.49				
24			130.00	418.84								
25	23.84	436.74									253.84	546.53
26									217.10	413.28		
27					32.64	186.54	6.00	358.49			13.50	560.03
28			57.13	475.97								
29			23.98	499.95					10.00	423.28		
30									30.00	453.28		
31	525.00	961.74	100.00	399.95					16.71	469.99	25.58	585.08
TOTALS		961.74		399.95		186.54		358.49		469.99		585.08
CUM. TOTALS		961.74		1361.69		1548.23		1906.72		2386.71		2942.29
OVER UNDER		Over		Over		Under		Under		Under		Under
AMT.		336.94		111.69		326.77		593.28		768.29		887.71
PER CENT		54%		9%		17%		28%		24%		20%

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* Cancelled Order

FIG. 11.—This is an illustration of a daily disbursement record, and is an exact reproduction of a current record (reduced from a sheet 8½"x11"), and illustrates how any given account may be watched, and accurate knowledge obtained of its status. It will be noted that each day's performance is entered so that a glance at the last total will give a bird's-eye picture of all of the accounts of the institution. Emphasis is placed on the fact that the way to control a total performance is by watching the individual account.

submitted, as illustrative of this control, a daily disbursement record of the dietary supply account. One of these sheets is kept for every supply account of the institution. Attention is called to the status of this account progressively

through the year. It will be noted that there are corresponding increases or decreases in the budgetary saving of the account as the demands of the service warrant increased or decreased expenses. It is desired at this point to emphasize as strongly as is possible that budget control is predicated upon control of each individual account and not upon the expense of the institution as a whole. The activities of an institution are too large, the demands of service have too many ramifications to permit an intelligent analysis of performance as a whole. There must be an analysis of each individual account.

As a further method of checking performance is the monthly statement of expense prepared by the hospital and submitted first to the superintendent, then to the board of trustees and last, but by no means the least important, to the individual department head. An excerpt from such a statement is shown. Attention is called to the status of these accounts which are compiled automatically so that each department head knows where he stands on his budgetary performance. If the superintendent is really functioning, steps will have been taken before this statement comes out to learn why certain accounts are exceeded and, equally as important, to know about those accounts that have not been expended to their fullest capacity. A niggardly policy of retrenchment, however, may militate against successful operation.

VOUCHER SYSTEM

The vouchering of bills for expenses incurred is an important step in the accounting scheme, and upon its completeness depends, to a large measure, the ease with which expenses are distributed.

A vouchering system should provide that each voucher include a copy of the original order covering the purchase, a copy of the receiving slip (evidencing receipt of the goods), the original invoice, and any other documents, such as copies

Classification	Budget 1 mo. 1923	Expense August 1923	Increase and Decrease over Budget		Budget 8 mos. 1923	Expense 8 mos. 1923	Increase and Decrease over Budget	
			Increase	Decrease			Increase	Decrease
441 Heat, Light and Power Salaries.....	\$ 950.00	\$ 950.00			\$ 7,600.00	\$ 7,591.68		\$ 8.32
442 Coal.....	1,166.66	643.29		\$523.37	9,333.36	8,868.89		464.47
443 Oil and Waste.....	16.66			16.66	133.36	96.77		42.59
444 Electric Light.....	333.33	232.54		100.79	2,666.68	2,005.78		660.90
446 Replacement and Repair.....	100.00			100.00	800.00	50.22		749.78
447 Miscellaneous.....	5.00	15.94	\$ 10.94		40.00	17.94		22.06
Total.....	\$2,571.65	\$ 1,841.77		\$729.88	\$20,573.40	\$18,625.28		\$1,948.12
451 General Maintenance Salaries.....	\$ 620.00	\$ 622.00	\$ 2.00		\$ 4,960.00	\$ 4,948.55		\$ 11.45
452 Supplies.....	625.00	166.19		\$458.81	5,000.00	2,738.02		2,261.98
453 Outside Supplies.....	20.83			20.83	166.68	151.61		15.07
454 Miscellaneous.....						10.00	\$ 10.00	
Total.....	\$1,265.83	\$ 788.19		\$477.64	\$10,126.68	\$ 7,848.18		\$2,278.50
461 Garage Salaries.....	\$ 220.00	\$ 220.00			\$ 1,760.00	\$ 1,760.00		
462 Supplies.....	20.83	10.00		\$ 10.83	166.68	76.18		\$ 90.50
463 Replacement and Repair.....	12.50			12.50	100.00	68.19		31.81
Total.....	\$ 253.33	\$ 230.00		\$ 23.33	\$ 2,026.68	\$ 1,904.37		\$ 122.31
471 Dietary Salaries.....	\$2,541.66	\$ 2,901.40	\$359.74		\$20,333.36	\$19,847.17		\$ 486.19
472 Supplies.....	541.66	391.87		\$149.79	4,333.36	3,251.20		1,082.16
473 Foodstuffs.....	6,250.00	6,664.86	414.86		50,000.00	54,100.85		\$4,100.85
474 Replacement and Repair.....	41.66	189.59	147.93		333.36	375.50		42.14
475 Fuel.....	166.66	186.00	19.34		1,333.36	1,464.86		131.50
476 Miscellaneous.....	12.50			12.50	100.00	33.85		66.15
Total.....	\$9,554.14	\$10,333.72	\$779.58		\$76,433.44	\$79,073.43		\$2,639.99

FIG. 12.—Monthly comparative statement of expenses, illustrating how various accounts should be watched in a properly operating budget system. In this particular group of accounts the hospital has been successful in living well within its budget in the aggregate of the group but must exert particular effort in the 472 Account in order to effect further savings if the performance

of correspondence, affecting the particular purchase. Before a voucher is drawn each of these documents should be checked; the invoice against the original order to insure correctness of price, against the receiving slip to insure correctness of amount of commodity billed; and the invoice itself for correctness of extension and footing.

Having followed all of these steps the voucher may then be completed and passed for payment.

It is of primary importance, in designing a voucher blank, to adopt a form that will permit the easy segregation of the items vouchered to proper expense accounts. This is desirable both for ease of handling and for permanency of record. Reference to individual vouchers is frequently indicated and if this voucher record is complete the task is often simplified.

The number and name of the account having been noted on the voucher, it is an exceedingly easy procedure to post from this form to the cash book and to distribute the expense to the proper departmental account in the same operation.

PAYROLL

Each department head should be held responsible for keeping an accurate record of the time worked by the personnel of his department. The method of accomplishing this varies with the size and character of the department. Standard time books divided on daily, weekly, semi-monthly or monthly bases are available and are suggested as probably being the best method unless a system of time clocks is installed in the institution.

Whatever mechanism of keeping time is adopted, there should be prepared and submitted to the accounting office each pay day a computed payroll showing the name, position or title, rate, time worked and amount due each individual, with a total amount chargeable to the department for the period wage or salary. Emphasis is placed on the point that this payroll should be computed by the department head.

The actual computing of this payroll will impress more vividly upon the head whether he has lived within his budget allowance. It will automatically provide another check as to accuracy, assuming that the accounting department will under no condition pass any item for payment without thoroughly checking it.

In organizations where there are a large number of attaches, with the consequent possibility of confusion of name, rate, etc., a code system has proved successful. As a graphic illustration it may be assumed that the housekeeping department's financial account number is the 410 account. Therefore, housekeeping salaries would be account No. 411. The codification of this department's payroll would be as follows: 411A Housekeeper; 411B Assistant; 411C Cleaning Woman; 411D Porter; etc., *ad infinitum*.

A payroll where such designations are used materially reduces the possibility of confusion. It permits of an easy check, and, in an institution working under a budget system, makes analysis of payroll an exceedingly simple procedure. The symbols following the salaries of the position indicate partial or complete maintenance. Those left blank indicate no maintenance.

Having received and checked each department's payroll, the accounting office should draw either one payroll voucher, if payments are in cash, or payroll checks, totaling the composite payroll and making immediate distribution of the amounts chargeable to each expense account. The composite payroll becomes an expense voucher with supporting data in the form of departmental payrolls, and should be handled through the cash book in this form.

When there are many attaches, the handling of all payroll checks through a separate bank account has proved desirable. Such a scheme permits of balancing the payroll account more readily than if payroll checks are handled through regular bank accounts.

Another method of handling payrolls is the installation of a system of time clocks. Such a system will be possible only if every individual on the payroll uses the time clock. The expense of the original installation, and the limited use to which a time clock system can be put in a hospital, make the advantages of its installation debatable.

CONTROL OF CASH

It is a practice in many hospitals to have all checks either signed by one or more members of the board of trustees, or signed by the superintendent and countersigned by some member of the board. This practice entails unnecessary hardships. Were these board members at the hospital all the time or even at stipulated times, there would be no objection to such a system, but the effort expended in passing checks for special purposes, such as the discounting of bills, is not warranted.

At the same time a definite control of cash is indicated, if the board is to exercise the proper supervision of the hospital's work. The following is suggested. Two bank accounts should be opened: one to be termed the "holding fund" and the other the "operating fund." The titles are suggestive of their function.

Into the "holding fund" should be deposited all income from operating sources, such as income from patients, sale of scrap, current donations, etc. This fund should be subject to withdrawal by the treasurer of the board of trustees either by his check alone or by his check countersigned by another officer of the board.

The "operating fund" should be created by depositing a stipulated amount, say \$5000.00 (the amount to depend upon the size of the institution). This fund should be subject to check of the superintendent only. All operating vouchers of the hospital should be drawn against this account. The superintendent is then authorized to draw vouchers for budg-

etary expenditures up to the limit of the account. At stipulated periods he should draw a list of vouchers thus passed, which should show the payee, amount, discount if any, net amount of voucher, and total amount of the list. These vouchers, and the list, should then be viséed by the purchasing committee or some authorized group of the board, and upon approval the list would become a warrant on the treasurer to reimburse the "operating fund" from the "holding fund." This procedure accomplishes:

1. An absolute check of disbursements;
2. An efficient method of checking purchases;
3. A situation which permits the superintendent to make special payments where indicated without the necessity of sending vouchers to board members as is now the case in the majority of hospitals.

The operating fund is, in fact, an enlarged petty cash fund and should be so treated.

SPECIAL OR RESTRICTED ENDOWMENTS OR FUNDS

No detailed reference has been made to the corporation accounts of an institution because these accounts vary to such a great extent that any comments made could only be generalizations. There is one point, however, that appears to be worthy of specific reference. Every institution sooner or later is confronted with a gift emanating from the generosity of some one interested in the hospital's welfare, the acceptance of which is surrounded by very specific restrictions as to usage. These gifts are tendered to meet the demands that in a great many instances are but transitory. They are oftentimes gifts of a considerable amount. In most instances it is stipulated that the income from the fund only may be used. Over a period of years the need for an income for the purposes designated by the donor is eliminated, the endowment ceases to function, and the institution is confronted with an asset the value of which is exceedingly

doubtful. There is an old adage that "one should not look a gift-horse in the mouth," but at the same time farsightedness would prompt a sincere effort to have gifts come to the institution for the general welfare of the hospital, without any limitation as to scope. The very act of tendering the gift would seem to indicate an interest in the institution's welfare and a confidence in the wisdom of its administrative body. It would seem wise, therefore, to stimulate gifts, restricted as to dissipation of principal if desired, but with no permanent restriction as to use of income.

PATIENTS' ACCOUNTING

The important points in a system of patients' accounting are the constant control and immediate availability of these accounts. These are fundamental requisites.

Control.—Two things are necessary to the control of accounts: first, an absolute unit of occupancy; and, second, the definite establishment of an individual rate for each patient. Consideration of this subject is distinct from that of the admitting room procedure.

Census.—First of all there must be established a very definite census period. Practice has demonstrated that midnight of each day is the time when there is the least admitting and discharging of patients. It is, therefore, in all probability the best time to make a census of the institution. Let there then be established as a census day, twelve o'clock midnight to 11:59 p. m. of the following night. A system of census taking must be established that will insure a check of the institution by each nursing unit. In addition, the administrative office must institute an additional check in order that there may be no question as to the accuracy of the census each day. To accomplish this, each nursing unit should prepare a daily census at midnight and the totals of the census checked by the administrative office, using as a control the admission and discharge report of the hospital as a whole.

The formula for computing the census for each nursing unit and for the hospital as a whole is invariable, and is as follows:

Patients remaining on hand at twelve o'clock the first night plus admissions (including births) from twelve o'clock to 11:59 p. m., minus discharges, minus deaths (including still births), must equal patients on hand at 11:59 p. m.

The admitting room also must keep a record of all admissions and discharges for use in the accounting office. Thus the information gathered from two distinct sources provides an absolute check of the census.

This census is the basis of the patients' charge system and also is the basis of part of the record of vital performance, so that its correctness is essential to a proper recording of facts. After the census has served its purpose in the accounting department, it can be transmitted to the department of records and analysis for entry into the day book of vital statistics. This information can be divided into as many subdivisions as are indicated in the opinion of the superintendent.

Computation of Room Earnings.—The twenty-four-hour report of admissions and discharges will furnish all of the new admissions and discharges for the previous twenty-four hours. From this, using previous lists, should be compiled by wards, an alphabetical list of all patients. This list should be in detail, showing for each patient the admitting number, name, room number and rate. These ward financial censuses can be prepared by the night telephone operator, night clerk, or by any one on duty after midnight, but it is desirable to have them available at the earliest possible moment each morning. The total of each one of these sheets accumulated for the entire institution is the earning for the previous twenty-four hours from board of patients.

Special Charges.—In addition there is the additional source of earning from special charges. The development of a sys-

tem of special charges has been more difficult by reason of the variety of sources from which special charges originate. The system suggested is that there be originated by each department producing special charges a daily special charge sheet, the report being made for the twenty-four-hour period or the census period. It should be in the hands of the accounting office not later than eight-thirty of each morning following. To illustrate specifically, the report for special charges from the dietary department for a period from midnight of Monday to eleven fifty-nine p. m. Tuesday should be in the accounting office not later than eight-thirty Wednesday morning. In the event that there are no special charges, a sheet with proper notations thereon should be sent by each department to the accounting office so that it may not overlook any one department's sheets.

These special charges, having been priced and totalled, form another constant of control for computing patient earnings of the institution.

Posting to Individual Accounts.—Assuming that the charge for board of patients has been computed by the individual ward financial census, and special charge for patients has been computed on a special charge sheet, the next step is to post this to the individual patient's ledger sheet and to insure the correctness of the posting by proper control. It should be borne in mind that this system contemplates the immediate availability at any time of a patient's account posted to date.

In an institution of fifty beds and over the installation of a billing or bookkeeping machine is of decided advantage. The system, however, is equally as efficient with manual or mechanical posting.

All ledger cards of patients in the hospital are to be arranged, first, by nursing unit and then alphabetically. The ward financial census is arranged in the same manner. Begin-

ning with Ward A the posting of the board of patients and any special charges is a comparatively simple matter.

If a billing machine is used the accumulated total is the total postings. This total must check with totals accumulated by adding the totals of the financial census and all special charge sheets. Any error is thus quickly detected and quickly corrected. If manual posting is relied on, the total posting can be obtained by operating an adding machine coincident with the posting. In any event, the posting to patients' accounts should be controlled daily just as a bank balances its transactions daily.

The outline of this procedure may seem cumbersome, but as a matter of fact it is exceedingly simple.

COLLECTION OF PATIENTS' ACCOUNTS

A great deal has been said about the collection of accounts and about the percentage of loss that a hospital sustains in its collections. Some have advocated legislation placing the hospital in the same category as hotels in regard to the failure of its clients to pay bills for services. There is no gainsaying the fact that the point of view of the general public towards the payment of hospital bills is hard to analyze; that there is not the inclination to liquidate an obligation to a hospital to the same degree that there is to liquidate other legitimate bills. There are unquestionably those who will attempt to defraud hospitals and to whom corrective legislation could be advantageously applied, but it is believed that a major portion of collection difficulties cannot be attributed to the "dead beat," but rather to the fact that hospitals have been remiss. These difficulties divide themselves into two major groups, the first of which is failure on the part of the hospital to consider properly the patient's ability to pay. To be specific, without any social investigation, the patient is admitted to a ward, and is assigned a rate of, let it be said, three dollars a day. It is true that three dollars a day is less

than the cost of care, but this patient is the breadwinner of a family of six. He is a laborer making laborer's wages. He has accumulated no surplus to take care of an extraordinary demand such as in sickness. This rate is assessed against him and in a short period of time there is accumulated a bill of seventy or eighty dollars, liquidation of which is absolutely beyond his ability. The bill is immediately put on the unpaid account list. The fallacy of construing it as a hospital asset is self-evident. If the patient is compelled to pay the bill, provided by hook or crook he can be made to do so, beyond a doubt his grocery or his meat or his rent bill will be unpaid. This is especially true if the illness is of long duration.

If a proper investigation is made at the time of the admission a decision unquestionably will be reached to enter him as a "no-charge" patient, to give him a lower rate, or to send him to an institution taking care of free patients. The illustration given is not an exaggerated one, and does not necessarily apply to open ward cases only. There are many patients admitted to semi-private and private accommodations who, if their financial status were considered, would have been put into less expensive quarters.

The cost of hospital operation has risen by leaps and bounds until it is reaching a point beyond which it will be impossible for the rank and file to pay, and therefore it is incumbent that this phase of the admission of patients be given much greater consideration than has been given in the past.

A second cause of failure in hospital collections is the failure to follow patients' accounts consistently, in other words, a failure to apply efficient industrial methods. For example: Patient B leaves the hospital owing it forty dollars. At the time of leaving he has no funds available, but he makes a definite promise to pay his bill in part on the fifteenth of the following month. In the average hospital, if he pays this bill on the fifteenth of the following month,

all well and good. If he fails to pay it, there is no mechanism that will routinely bring the fact to the attention of some one whose duty it will be to remind him of it. The time to call Patient B's attention to his failure is the fifteenth of the month, and not the twenty-seventh. A very large measure of the value of this reminder is lost if it is not made at the time promised.

The establishment and routine operation of a date tickler system have in many instances proved extremely valuable and productive of very material improvement in the collection of accounts.

The securing of a guarantee on hospital accounts sometimes has a salutary effect. The legal significance of such a guarantee is not great, but it definitely establishes a claim, and consequent ease of collection.

CHARGING OFF OLD ACCOUNTS

It is desired at this point to emphasize the incorrectness of carrying patients' old accounts as a part of current assets. The author has known institutions that have accumulated as assets patients' accounts of as long as twenty years' duration. The statement is submitted, without fear of successful contradiction, that as a rule a patient's account of over ninety days' standing is not worth ten cents on the dollar, and therefore it is definitely recommended that someone in authority go over unpaid patients' accounts every ninety days, and, unless there is some definite contra-indication, charge off old accounts to the end that the statement of patients' unpaid accounts will be a true statement of assets.

This is one of the detail activities that the superintendent of a hospital or someone in administrative authority should do. The moral effect of creating the impression that these collections are being watched; the moral effect of letting the staff in the accounting office know that their performance

is judged by the ratio of uncollected accounts, cannot but be productive of good.

It is at the time of admission that social judgment should be applied and not after a bill has been created. Hospitals should, in fact, must be administered with a highly developed social sense and a sympathetic understanding of the problems of its clientele, but if the scheme of admission is correct and the original assignment of rate is based on this sympathetic understanding, the collection of accounts then becomes a cold-blooded business proposition, and the hospital should apply every known means to liquidate that account. The time for adjustment and the time for the application of the social point of view are at the time of admission and not at the time of discharge. There will be a lesser number of unpaid accounts and also a greater ratio of collected accounts if this principle is applied.

REGISTRATION AND ADMISSION

This activity either can be combined under the direction of one individual or divided among a group of individuals, depending upon the activity and the size of the service. The principles are as follows:

Reservation of Accommodations.—The importance of equitable administration of this activity is exceedingly great, especially if the hospital and its facilities are in demand. With a closed staff the activity is simplified, but with an open staff, the complications ensuing are many and the ramifications of complaint so very great that an individual of tact and judgment is required to handle this important duty. The good will of the physician referring patients to the hospital is a very tangible asset to the institution, and one of the easiest ways of dissipating this asset is the creation, many times without justification, of the feeling that the individual physician has been discriminated against. Certain basic regulations are, of course, essential in the administration of

this department. These regulations, however, should be created with a degree of flexibility that will permit the person in charge to exercise her judgment. Emergencies must be met at all times, and it is the emergency properly met which creates the highest respect for the institution.

Record of Bed Occupancy.—To administer reservations correctly, it is essential that the individual responsible for these reservations at all times have a complete record of the occupancy of every bed in the institution. This can be accomplished by a room board on the wall, by a visible index, or by a box file index. Any method that is deemed advisable by the hospital is satisfactory; the important thing is that the information be up to date at all times. Photographs illustrating the methods of reservation are incorporated herein.

It is important that, irrespective of the size of the institution, reservation of facilities be construed as a primary duty on the part of the individual to whom it is assigned. No institution, no matter how large, need have more than three persons taking care of reservations, and no institution, no matter how small, should have less than three. The practice which prevails in many institutions of having reservations handled by whomever answers the telephone is incorrect and always will be productive of criticism.

There are two general types of reservations: the reservation for current cases, and, in institutions handling obstetrics, reservation for obstetrical cases. The administration of the latter type is extremely difficult, requiring a good deal of experience, especially if the service is an active one.

No additional comments need be made on reservations for current cases. Practice will demonstrate proper procedures. It is desired, however, to make some comment on obstetrical reservations. No institution should reserve to exceed eighty per cent of its obstetrical facilities for any one period. To illustrate this point, it may be assumed that the hospital

MATERNITY & CHILDREN'S HOSPITAL					
PATIENTS' REGISTER					
SECOND FLOOR		THIRD FLOOR		SOLARIUM	
501	SOLARIUM	NURSERY	311	1	
502				2	
503				3	
504				4	
505	SEMI-PRIVATE		303		
506			1		
507			2		
508			3		
509	PRIVATE ROOMS		4		GENERAL WARD
510			5		
511			6		
512			7		
513			8		
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515			10		
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517			12		
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FIG. 13.—Designed for hanging on a wall. A satisfactory equipment for a small hospital. Does not offer any privacy to record.

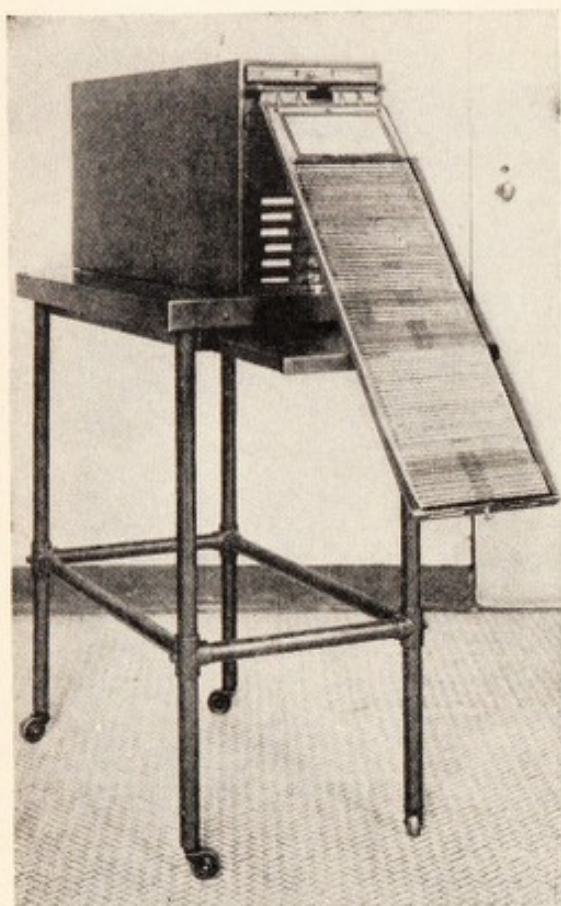
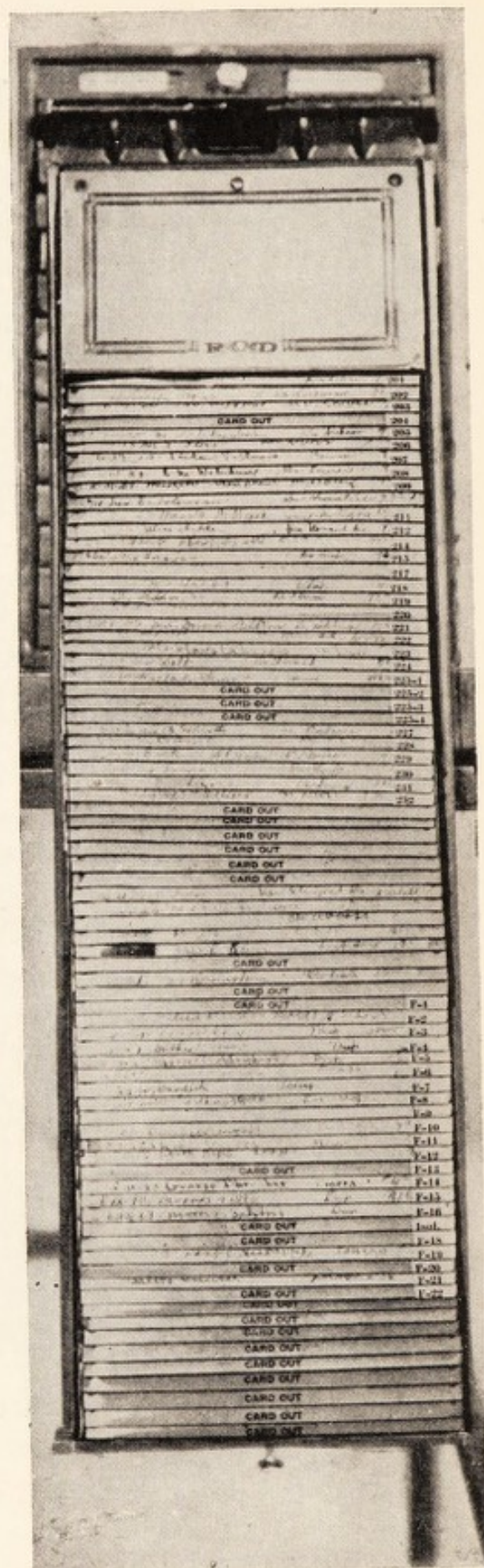


FIG. 14.—Visible index for large hospital. In this Cabinet may be combined such information as Alphabetical List of All Patients, Record of Ward Occupancy and Alphabetical Record of Reservations.

FIG. 15.—Detailed leaf of Index illustrated. Please note that this one leaf has space provided for each of the beds on two wards. The condition of the ward as to occupancy can be seen at a glance. It will be noted that Beds in room No. 204 and three beds in Ward 225 are vacant, also that there are four beds vacant in addition to the quiet room on ward F.



has obstetrical facilities of twenty beds, and that the average stay of an obstetrical patient is fifteen days. It is evident, therefore, that there is a total patient-day facility in the obstetrical division of forty patients per month. If reservations are accepted for more than thirty-two patients there will be trouble in administration. The flexibility that by very nature of things is indicated in an obstetrical service, must insure prospective patients facilities when they demand them, and there must of necessity be some leeway if patients are to be given this assurance. If a patient's reservation is booked for the fifteenth and she comes in either on the first or on the thirty-first of that month (or perhaps on the fifteenth of the previous month), the statement that facilities are not available at that time but will be available on the date reserved, will not meet the situation. One or two failures to provide accommodations cannot help but create ill will for the hospital both on the part of the patient and her physician.

This allocation of reservations must not be thought of in terms of a unit as a whole, but in terms of the separate facilities of the unit. To illustrate, if out of twenty beds there are ten private rooms and ten semi-private rooms, then the registrar must think in terms of eight private accommodations per period or sixteen per month, and eight semi-private per period or sixteen per month. An individual making reservations for a private room is not going to be content with semi-private facilities. The inverse is not necessarily true, but the private room patient, unless she is the unusual individual, will resent not having available the facilities that she has reserved.

ADMISSION OF PATIENTS

One of the most strategic positions in the hospital, and one that is productive of greatest good will, is the attitude of the individual who is responsible for the admission of patients.

Hospitals can well afford in the handling of their patients to follow the manual of hotel administration. When an individual presents himself at the hospital for admission, that act is an event in his life. He is not normal, he is less able to meet annoyances, is highly sensitive, and is laboring under a mental strain that materially changes his point of view. It is the task of the person in charge of admission to make things as easy as possible for him. It is too often true that in the stress of many duties the admitting officer assumes a brusque manner and creates the impression of lack of sympathy and lack of understanding of the individual's problems.

It must not be forgotten that what to us is an every-day occurrence, to the individual is a very serious step fraught with unknown possibilities. A little time spent sympathetically with the patient will do much to create in him the proper attitude and cannot help but react to the best interest of the institution.

Patients' Register.—The first procedure in admitting a patient, after his physical needs have been taken care of, and this must be given great emphasis, is the entering of his vital record on the patients' register. Some institutions prefer this in loose leaf form, others in bound books, others on cards. Either the loose leaf or the bound book is the only proper method of handling this information. It is dangerous to depend upon a card system as a control, by reason of the possibility of loss. In addition to this patients' register, there should be an alphabetical card register used for locating patients' records by name, in fact, for any other than a chronological reference. However, chronological recording on sheet form is the only safe system.

Immediately after information is entered in the patients' register, it should be transmitted either by telephone or by written memorandum (preferably the latter) to the information center of the institution. The immediacy of this step cannot be too greatly emphasized. The information center

should at all times have at its disposal immediate information on the admission of patients and any other information pertaining to them. This is especially true in connection with the activities of the emergency room. More will be said of this in another chapter.

Clothes and Valuable Lists.—The handling of patients' clothes and valuables always presents a potentiality for trouble. The human race has a peculiar point of view towards such problems. Individuals may be careless to the extreme. They may be absolutely responsible for a loss for which they blame the hospital. They may never have brought that particular article to the hospital, but there is no question in their minds but that it should be replaced at full value, and, in a large number of instances, at an increased value by the hospital. This being the case, it is incumbent upon the institution to safeguard its interests in every way possible, to the end that justice be shown the patient, and the hospital be protected at the same time. There are three problems in conjunction with this question.

The first concerns the handling of valuables. It should be an inviolate rule that no patient, irrespective of the facility occupied, be permitted to have any valuables in his possession. There will be times when some patients will insist upon retaining rings and articles of a similar nature. In such a case, both the patient and the patient's relative must distinctly understand that it is entirely at the risk of the individual. In order that this system may be successfully carried out, the hospital must furnish a depository for valuables and must develop a system of duplicate receipts that will safeguard the interests of all concerned. Unconscious patients, and patients going to the operating room, should at no time be permitted to wear jewelry. Those who have had experience know that absolutely unexplainable losses occur, the stigma of which always attach to someone in the institution.

Another problem is the handling of the clothes of private

patients. Where the room provides accommodations for the care of clothing, one method is the absolute refusal of responsibility for the clothing; another is to place private patients' clothes, along with ward patients' clothes, in a central clothes room. The first system does not contemplate the use of clothes lists; the second necessitates such a list.

So far as ward or semi-private patients are concerned, the hospital that does not insist upon their clothes being handled in a central clothes room is unwise. The potentiality for losses which are bound to occur is great. The handling of patients' clothes in a central clothes room necessitates the use of a duplicate clothes list, one copy of which is retained with the patient's history and the other copy given to the patient.

EMERGENCIES

The administration of the emergency suite is included under the admitting service in a large number of institutions, by reason of the combination of these duties with the duties of admission. There is little of particular moment in the emergency room that has not been covered already, except to impress upon everyone the importance of prompt handling of emergency cases. There is no one place in the institution where an impression of snappy, up-to-the-minute service can be created better than in the emergency room. Instruct the house staff, the nursing staff and all concerned that a moment lost in getting to the patient seems like hours to him. It may not be necessary to render immediate medical service, but someone must be in attendance on the patient immediately upon his arrival, and he must be made comfortable. This is an extremely important function.

CONTINUOUS RECORD OF ACTIVITIES

Registration and admission of patients are continuous performances twenty-four hours a day, three hundred and

sixty-five days a year. By reason of the changing of personnel incident to time off duty, it is not possible for one individual to cover this activity, but a continuous knowledge of what has been done during the previous period and what is anticipated in another period is essential. It is, therefore, suggested that an intimate log be kept, easily available on the desk of the department, and that every procedure, no matter how minute, be recorded. When the procedure has been consummated, it should be checked; under such conditions, in the event of a change in personnel prior to the consummation of a definite performance, the new person in charge will know what has been done, and what must be done to bring the procedure to fruition.

RECORD OF REJECTIONS

It has been the experience of the author, in attempting to analyze demands for hospital service in various institutions, that very few hospitals actually know the real facts relative to the demand for their facilities. This statement is made on the assumption that a major portion of the hospitals of the country are to a greater or lesser degree full, i. e., that there are times when demands for their facilities cannot be met. The number of times that this condition exists, and the degree to which it does exist, constitute the only true index of the need for additional hospital facilities, and this is a question that most hospitals must answer sooner or later. It is believed, therefore, that the individual responsible for the registration of patients should keep a uniform record of rejected applications, and the reason for the rejections, such as lack of facilities, improper cases (chronic cases in an acute hospital, etc.), physician not acceptable, or any other heading that may be determined upon by the administration. These data, compiled in the daybook of the hospital (mentioned in another chapter), will be of great reference value when new buildings or change in facilities are indicated.

TELEPHONE

How many hospitals are proud of their telephone service? How many superintendents have given proper thought to what the right kind of telephone service means? How many realize that the telephone switchboard is the nerve center of the institution? How many consider that at it and through it is handled a very large proportion of the entire activity of the institution; and that the operators are often responsible for the transmission of vital information? The telephone switchboard, as such, makes many times more contacts with the outside world throughout a day than the entire personnel of the institution. If the hospital is serving its community to the maximum of its ability, then the service rendered at its telephone board will be a fairly true index of the community's impression. Too great stress cannot be placed upon this point. The telephone switchboard must be developed on an efficient basis. It must be sufficiently manned to permit of prompt, efficient, courteous, kindly response. These requisites must exist to a greater degree than in most activities by reason of the type of information demanded. When an intimate friend or relative of an acutely sick patient calls and asks for information as to a patient's condition, the manner in which that information is given is of vital importance to that individual. It may be a routine procedure so far as the hospital is concerned, but it is decidedly vital so far as that individual is concerned, and the hospital, if it properly functions, must set up a mechanism to permit of expediency, accuracy and courtesy at all times.

It is rather difficult to determine the degree to which the telephone service should be developed. The author has in mind two institutions of identical size. One has approximately twenty-five telephone stations with one telephone operator on day duty and one telephone operator on night

duty. The telephone operator in the daytime does a major portion of the routine typing work of the institution. The other institution has over one hundred stations, a total of five telephone operators and is constantly being met with demands for additional telephone service. It is, therefore, recommended that this facility be developed in keeping with the demand of the individual institution and that demand should be analyzed, bearing in mind the ideals above enumerated.

Paging Systems.—A very great problem, especially in large institutions, is the necessity for locating members of the staff. Irrespective of its type, a paging system is necessary, and a logical point for the location of this system is the telephone switchboard. In paging members of the personnel, if there is to be efficiency, there must be prompt response to the page to avoid undue annoyance to patients.

Staff Register.—Another definite piece of equipment at the telephone board is an attending staff register. This is to acquaint the operators immediately with the presence of staff members, so that messages may be transmitted promptly, and an opportunity afforded to furnish proper information to members of the organization desiring to contact with the attending physician. It may be either a signed register, a light system or a combination of both. The signed register should never be dispensed with, as a permanent record of staff attendance is highly desirable. In some institutions a supplementary light system is indicated and used to good advantage.

Record of Performance.—The telephone switchboard also should have a log of its performance and this log should be checked immediately upon the arrival on duty of a new individual to complete different services properly.

Location.—The telephone should not be located close to the entrance lobby. Because of the degree of confidential

information transmitted, the location of the board should be such as to insure privacy.

Attitude Towards Information.—Those entrusted with the handling of the telephone board should be impressed with the necessity of treating information obtained confidentially as does the professional man with his patients. Most persons treat too lightly information obtained in the course of their daily work. This is an exceedingly dangerous practice and one which should never be overlooked by the personnel of the hospital.

INFORMATION CENTER

It is inferred in a previous paragraph that the information center and telephone center should be combined. Some will object to this combination, but it appears in the main to be logical. If the size of the institution warrants the use of two persons for the purpose, it would seem preferable to have them work together on a combined telephone and information center than to have one person on the telephone and one person on information. This would seem reasonable since the major portion of the information that must go to the information center would also have to go to the telephone board. Unless there is some very definite contra-indication (a condition that does not obtain in a very large proportion of hospitals), the information center and the telephone center should be construed as one and the same problem.

Qualifications of Personnel.—In discussing the qualifications of the personnel one must not lose sight of the fact that most information sought is transmitted over the telephone. Some one who knows how to use a telephone must be selected. This qualification should not be belittled. The American Telephone and Telegraph Company definitely recognizes that very few voices are attuned to telephone usage, and one of the first stages in training of telephone operators is the proper method of speaking into the instrument. Many

will recall a series of advertisements that were run on "The Voice with a Smile." Certainly a low, properly attuned, sympathetic response to a telephone call creates an impression that is lasting in its value.

Workers at the information center should have poise; should possess a degree of restraint; should be able to meet emergencies quickly; should be pleasant; should have sympathy; should not belittle the importance of each individual call; and should realize that upon them is dependent to a large measure the good will that is so essential to any institution's success.

Centralization of Information.—With the establishment of this center, all information of a routine nature should be handled by the information clerk. This should not be interpreted to mean that it is desirable that Information handle intimate problems of the various departments, for such is not the case. There is no thought of taking away from the nursing department, the dietary department, or other departments queries regarding their own intimate operation which can best be answered by them, but routine information should be referred to this central point for handling, both for control of the character of information and for saving the time and energy of the personnel. To illustrate, referring calls to a nursing unit for information relative to the condition of a patient is fundamentally unsound and requires a withdrawal of nurses from the activity for which they are retained to a performance that can be accomplished by someone else.

If this premise is at all sound, then there is immediately created the necessity of making this information center a center in fact as well as in theory. Therefore, a mechanism must be built up that will insure the transmission of all information to that center immediately upon its becoming available.

Within three to five minutes of the time a patient is

admitted Information should be in possession of the fact; not thirty minutes later. When an emergency case is received, one of the primary duties of someone in the emergency room is to call information center and say that such and such an emergency is received and that a supplementary report will be made shortly. When a patient's condition changes from better to worse, that information must be made available to the information center promptly. The practice of getting a morning and evening record on condition of patients is so fraught with danger as to make the incorrectness of it self-evident. There are several methods by which the condition of patients can be reported.

Index of Patients.—The information center must have an alphabetical list of every patient in the institution. This can be accomplished with a box file, or by a visible index. In the opinion of the author a visible index is by far the better system, because it is readily visible, it is easily handled, and it permits a system of flagging that has proved very satisfactory. In the visible index system the admitting room records the patient's admission on the patient's register and originates an alphabetical index card, transmitting this card immediately to information center. This card may be used for the current list of patients in the institution, or from it can be transcribed to a current index pertinent information. The card should contain the name of the patient in full, the address, the telephone number of the nearest relative or friend, and the name of the doctor under whose care the patient is, together with the nursing unit location of the patient.

Reporting Condition of Patient.—Immediately upon the admission of the patient to the ward, the charge nurse on the floor should call Information and say "Patient so and so admitted, and condition so and so." In some instances four divisions of conditions have been developed, and have proved satisfactory: Class 1 "condition good," class 2 "condition fair," class 3 "condition serious," class 4 "condition danger-

ous." Each of these classes is represented by a distinctive color of flag, and when a change in that patient's condition is reported by the charge nurse, by the interne or by the attending man, a different colored flag is immediately affixed to that alphabetical index.

Let it be assumed that a patient comes in class 1, and the following morning, upon return from the surgery, is in class 3. The charge nurse on the ward calls Information immediately and says, "Change patient so and so from class 1 to class 3." A routine can then be established so that all information relative to condition of patients in class 1 and class 2 will be reported without telephone inquiry to the ward. Inquiries relative to all patients in class 3 and class 4 must be confirmed by telephoning the nursing unit, thus insuring that correct information be given on patients in serious condition. The proper working of this system is dependent upon Information having all facts promptly at all times. The importance of this point cannot be over-emphasized. It has happened frequently that individuals who have called have been told that a patient was progressing nicely when in reality he had passed out within an hour or so.

Transmission of Telephone Messages.—Another information service is that of securing proper transmission of telephone messages to members of the attending staff. The interruption of medical men during the period of their activity in the institution is distracting and is not productive of the efficiency desired. At the same time it is incumbent upon the hospital, both from the point of view of the individual calling and from that of the attending physician, to get this information to him promptly and correctly. A knowledge of the presence of the attending physician is, therefore, essential to a proper administration of this function.

Log of Performance.—It is extremely important to have twenty-four-hour a day knowledge of the activities of this

desk and to keep at all times an accurate record of the activities to be consummated.

SUMMARIZATION

The slight intangible items of service are the ones that create the big impressions. The hospital may render a super-service on its nursing units. Its dietary performance may be beyond reproach, but if it falls down in one of these infinitesimal duties it will be criticized and criticized severely although perhaps unjustly. The function of this department of the hospital's work does not represent large expenditures of money, but it does represent a very definite expenditure of energy, thought and consideration. After all are not all of these things essential when we are dealing with a commodity as precious as human life?

RECORD AND ANALYSIS

The point has previously been made that accounting has a two-fold purpose: first, the permanent recording of past performance; and, second, the furnishing of a basis of discussion and study for facilitating and improving the performance of the future. In the minds of many there has been a question as to the value of statistics, but statistics furnish the only means of an accurate knowledge of past performance. A knowledge of the mistakes of the past would seem to be the best means of improving the service of the future. In establishing the department of records and analysis as one of the primary functions of a hospital's activity, it is desired to stress the importance of using the accounting systems, both financial and vital, to the end that the hospital may learn from the past and improve the future.

It is desired to divide this activity into three basic groups:

- A. Professional.
- B. Financial.
- C. Vital.

PROFESSIONAL RECORDS

The professional records of a hospital limit themselves exclusively to the method of taking patients' histories and the use to which they are put. In all probability more has been written on the subject of history taking than any other one subject in hospital administration. Many administrators are concerned with the sometimes almost insurmountable problem of securing properly recorded patients' histories, and the meeting of this problem merits a good deal of individual thought. No system and no method can be a panacea for the ills of all institutions; each must work out its own problem. There are some procedures, however, which at no time lose sight of the four fundamental purposes of a patient's history: (1) a specific record of procedures for the individual patients; (2) an analysis of the individual physician's performance; (3) an analysis of the hospital's performance as a whole; and (4) a basis for the scientific investigation and advancement of medicine.

Writing the History.—When a burden is created which is beyond the ability of the individual to meet with ease, an administrative impossibility is produced. Therefore, to expect the average practitioner of medicine to write a history in as complete detail as is indicated is, in the main, expecting the impossible. The average practitioner, although he may have the inclination, has not the time to do it, and any task that is considered as a secondary responsibility will never be done. It is, therefore, incumbent upon a hospital, if it is to obtain complete histories, to set up some method of insuring that these histories are written currently and completely.

In a large number of institutions this has devolved upon the interne staff, and has become a definite part of interne training. The use of a history does not stop with its transcription. In writing and analyzing a history the interne will learn a great deal, but the taking of histories and their

consequent transcription are rather humdrum performances. The task is irksome and, therefore, not always well done. In an active service where the house officer is busy with his medical work, unless the hospital sets up some supplementary service to aid him in the transcription of these histories, there will not be produced the type of histories desired. All the administrative ideals and all the administrative control will not be productive of as great a degree of good, as will the setting up of some supplementary machinery in the way of stenographers and dictating machines, to supplement this piece of medico-administrative work. Such machinery produces an increased operating cost, but the real product of a hospital is the manufacturing of well human beings. Patients' records are the real production records of the hospital, and if industry keeps production records and cost accounting systems of production, is it not equally necessary for hospitals?

The most important record of a hospital is the record of its patients' care. It is this record that is the true register of the work; not the annual report. The administrative records, the vital records, the financial records, all are essential and all are necessary to a proper understanding of what a hospital has done and will do in the future, but these cease to be of any importance if the real purpose of the hospital, the care of the patient and the intimate details of that care, is not efficiently recorded.

Use and Analysis of Individual History.—It is assumed that the history has been written in long hand by the interne or has been dictated to a stenographer or dictating machine and transcribed on the typewriter. The next step, a fundamental one, is the reading of that history by the attending physician, who checks it for correctness of findings and transcription. Here lies the definite difference between the actual taking of histories for the maximum benefits that are to be derived and the mere going through the motions of taking a

history. Internes in legion will declare that one of the irksome jobs of their internship was the writing of histories which upon completion were absolutely disregarded by the attending staff. An interne is perfectly willing to write histories, if it will be of some value in his training, but when he has spent two or three hours in working up a patient, and his attending man comes the next day and makes no reference to that work, being human, he soon ceases to be interested. Therefore, after the histories are written, the next step in the procedure is to have an intelligent, constant, conscientious check made by the attending physician with suggestions, additions and corrections recorded so that the history will be a true statement of the findings on a patient.

Responsibility for History.—The responsibility for histories is primarily a responsibility of the attending staff and is one its members cannot avoid even if they will. If staff members are truly functioning in their respective positions, they will see to it that checking is done. If, however, the scheme of organization is sound, the ultimate responsibility for this function rests with the administration. The superintendent of a hospital must know that these tasks are being done and, if the staff is remiss, must institute such corrective procedures as are indicated. This is not a secondary responsibility. It must be accepted currently, consistently and continuously, and is one of the primary reasons for the development of a department of records and analysis, to the end that there may be somebody with an administrative point of view, who will study these histories as they are discharged and see that all necessary functions have been performed while the patient is in the institution. What is everybody's job is nobody's job, and, unless there is some one individual or group held primarily responsible for the supervising and inspecting of all histories, there will be a laxity that will ultimately produce a failure in the history-taking system.

ANALYSIS OF MEDICAL WORK OF INSTITUTION

Histories *per se* are of value to the individual patient and individual physician, but the ultimate value comes, so far as the institution is concerned, when a composite picture is presented of all histories produced by the various services of the institution. An analysis of all discharged histories should, therefore, be prepared periodically, and the results of this analysis widely circulated throughout the institution.

Is it not important to analyze the number of deaths and the causes of these deaths? Is it not important to take each individual death and in consultation decide whether anything could have been done to reduce the possibilities of that death? It will be surprising to analyze institutional infections, for example, and note the source of infection, who the operator was, what the infection was, what steps were taken to correct recurrence. No truer index of the functioning of the staff can be had than an analysis of the number of consultations; the number that were asked for and obtained; the number that were asked for and not obtained; the number that were indicated and not asked; the number that have been obtained and were not followed in the treatment; and the reasons. All of these things are simply the application of sound common sense in the administration of this important phase of hospital operation.

Many will say that their doctors will not permit such analysis. It is not within the physician's province to determine whether this shall be done or not. If the board of trustees is to accept its responsibility to the community in knowing what is going on in the institution, then such an analysis must be made to establish facts. The attending staff may resent such a procedure, because it does not understand the motive, but if the study and the results thereof are approached with the constructive point of view uppermost, if there is a sincere desire on the part of the adminis-

tration to help, it is hard to believe that any staff will long object. Experience has demonstrated that they will not object but will lend every assistance to carry out the scheme successfully.

FINANCIAL RECORDS

There is no question but that a great many institutions recognize the need for analysis of their financial performance, but it is doubtful whether in a large number of our institutions there is made that intelligent study of the matter that should be made. Again we cannot apply one dogma or rule to all institutions, but there can be set down certain definite fundamentals the application of which will help to solve problems.

Study of Budgetary Performance.—A previous chapter has outlined fundamental principles in the application of a budget system. No budget system will be beneficial in its operation unless a constant intelligent study is made and is concluded in an analysis of the auditor's statement and in an analysis of vital performance referred to later. Assuming that there has been set up a chart of accounts and a budget of performance, and that there has been submitted an auditor's figure of previous periods, even then none of these things is of any value from an operating point of view unless they are available promptly for study and the results of the study are transmitted to each department head.

To enlarge on this point, comparative figures of operation for the month of January are of no value unless they are available early in February. The practice of waiting until the end of the fiscal or calendar year before this information is submitted may be acceptable so far as the first function of an accounting system is concerned, but is valueless so far as the second and the more important function is concerned. If a hospital has an increase in its nursing cost during any

one month the time to analyze the reason for that increase and the time to apply corrective measures is immediately after the increase has been produced and not several months later.

For the sake of specific illustration, some points of analysis will be given. It will be understood that these points are merely suggestive in their nature and that there is no thought of their being all-inclusive; they are used merely as an indication of what can be accomplished with proper analysis.

The auditor's report for the month of January has been submitted, and it is found that in the 482 account, "salaries of graduate nurses on general duty," the budgetary allowance has been exceeded to the equivalent of two graduate nurses. The time to find out why that excess was permitted is either at the time the nurses were put on duty, or failing to have done this, immediately after the current month's performance, so that unless there is an extreme emergency the nursing personnel may be decreased and the department compelled to live within its budget.

In the same report it is noted that the 573 account showed a 9 per cent increase over the budgetary allowance. If the superintendent waits for three or four months before he analyzes the situation the possibility of an intelligent analysis is very remote. It can be analyzed very definitely, however, promptly after the completion of the period's operation.

So far as income accounts are concerned, it is discovered that the 306 or 315 account, miscellaneous receipts, shows a falling off over a comparable period last month and if analysis is made it may be found that instead of scrap being sold it was disposed of in some other way. Or it may turn out that for one reason, probably an oversight in the accounting department, a number of bills were not discounted. This can very easily be checked up and corrective procedures instituted.

In other words, if the hospital is going to analyze its financial performance, if it is going to be intelligent about what is actually happening in the institution, it must make this analysis and make it currently, with a degree of interest and understanding and with a recognition that by such methods is attained the necessary degree of efficiency in performance. An intelligent study of figures holds a degree of romance that very few realize, and interest stimulated in such studies will be productive of great good.

It is surprising to see the interest that head nurses will take in a statement of the comparative cost of various nursing units of an institution. They will pore over graphic charts that have been produced by the administrative office and try to find out why their costs are up. It is really stimulating to see the interest that the chief engineer, the dietitian, the housekeeper, manifest in keeping within their budgets, and to have them come to the office and ask why there is an excess. The stimulation of this degree of interest in the problems of administration among department heads compels them to recognize that, while they are not primarily responsible for the financing of the institution, they are responsible in carrying out the policies of finance. Such understanding and interest not only compel a higher degree of efficiency, but make the individual more interested than ever, infinitely more interested than if the financial operation of his department is surrounded with a shroud of mystery.

Therefore the financial analysis must be a prompt analysis of current operations intelligently made and given wide publicity among departments. Performance should be expressed in terms of percentage as well as in terms of dollars and cents. Actual figures in terms of dollars and cents do not mean much, but percentage of performance means a great deal. If the percentage is kept sound, the actual figures will take care of themselves.

VITAL RECORDS

In order to analyze the performance of an institution intelligently it is necessary that there be available accurate data on the various departmental activities. These data are not available in compiled form in far too many institutions until such time as there may be a specific need for some part of them. When this need becomes apparent, the information is compiled from various sources; the very method and the haste with which it is compiled often militating against accurate results. The maintenance of a day book of hospital statistics is an exceedingly simple procedure, the results of which are amply justified.

It would be presumptuous for one individual to put down the pertinent needs of all institutions, but there are certain basic things that are prerequisite to a thorough understanding of any hospital activity, and it is these basic needs that are herein enumerated.

From the twenty-four-hour report the total number of admissions is easily obtainable. These, entered in the day book and totaled at the end of each month, will accumulate the total number of admissions per month. The same method is used in arriving at the number of discharges. The total patients remaining on hand on the last day of the previous month, plus the total admissions, minus the total discharges, should and must equal the total number of patients remaining on hand as of the last day of the month. This is but another check of the accuracy of the census.

There are several fundamental divisions of house census that are not only desirable but absolutely essential to a proper understanding of the institution's activity. These are enumerated as follows:

A. Division as between nursing units, designed to show the relative total occupancy of a particular nursing unit for each period. The total of these various unit divisions must equal the total census of the house.

B. Total number of pay, part-pay and free patient days. This is essential in a differentiation and analysis of the community service rendered by the hospital. A total of these divisions must equal the total census of the hospital.

C. Total number of male and female, medical, surgical, specialty, etc., patient days of service rendered. This division is designed to furnish data on the nursing care divided into services and also to indicate the diversity of cases that are taken care of in the institution.

D. Analysis of discharges on a medical basis, using the same headings that are used in the analysis of history sheet referred to in previous chapter.

E. Rejections and the reasons therefor, as referred to in a previous chapter.

F. Analysis or determination of the sources of patients as to whether they came from the staff, from outside physicians, were referred by relief social agencies, by other medical agencies, etc. This analysis is predicated upon the admissions, and the total of this group must equal the total admissions to the institution. (This latter comment is made to show how each one of these analyses tie up with the other.)

G. An analysis of deaths listing those chargeable to the institution and those not chargeable.

H. Total operations performed and anesthetics administered, differentiating as between major and minor operations, and gas, ether and other anesthetics.

I. Total number of X-ray pictures, fluroscopies and treatments furnished.

J. Total number of laboratory examinations, divided between chemical, bacteriological, serological, pathological, etc.

K. Total number of tons of coal consumed, of ash hauled, of water used, of ice pulled; the percentage of ash to coal; the total number of minor repair requisitions.

L. Total number of pieces of rough dry, flat and finished

laundry work handled; or, if it is desired, the amount on the per pound basis.

M. Total number of meals furnished to personnel; the total number of patients' meals, divided among regular, liquid and special diets.

These are but some of the detailed reports that should come to the department of record and analysis and should be incorporated routinely as a part of its activity. In the telling, this sounds cumbersome, but it will not take any department head to exceed five minutes a day provided his department is properly organized to prepare and submit such a report; nor will it take to exceed one hour and a half a day in the largest institution in the country to compile and enter all of this information in a properly organized day book. This day book idea can be enlarged as the superintendent desires.

PURPOSE OF THE DEPARTMENT

Now what is the purpose of all of these figures and how are they to be used? The answer is exceedingly simple if one will think on the subject.

The superintendent receives a complaint from the nursing department that there is a shortage of linen. There has been developed a record of the linen used on the various wards of the institution and that information is available for the superintendent's analysis without much effort. Very quickly it can be determined whether that shortage is traceable to the laundry, whether there is an over-supply on some particular ward, or whether there is an actual shortage. With equal ease, an occasional inspection of laundry figures will show which of the nursing units is wasting linen and which is conserving it.

The chief of the department of laboratories asks for another technician. An analysis of this department's statement of performance, available at a moment's notice, will demon-

strate beyond a shadow of a doubt whether an increase in the work justifies the expenditure.

Complaint is made that repair requisitions are not being handled promptly. A study of the repair demands indicates that there is no particular increase in demand for repair service. The answer unquestionably is a decrease in the efficiency of some repair men.

The following incident from the practical experience of the author will serve as a very definite illustration of how this system works. The institution had for some time kept a record of the actual nursing hours of service upon each ward; by this is meant the actual time consumed on the ward. There was one particular ward upon which there had been an unusually large number of complaints as to the nursing service. The charge nurse insisted that she did not have enough nurses to get through with her work. By taking the total patient day occupancy of that unit and the total number of nursing hours of care, it was easily demonstrated that this particular head nurse had a higher ratio of nurses per patient than any other nursing unit in the institution. With this absolute fact before her, the department head was convinced that there probably was something wrong with the nurse administration of that ward and a further analysis culminated in the changing of head nurses, a material reduction in the complaints, and an elimination of the demand for additional nursing assistance. This one illustration is given merely to justify an expenditure of energy. Illustrations could be quoted by volumes.

To summarize the department's function, the accumulation of all of these statistics, the compilation of facts, the segregation of income and expense, the writing of histories is going to be money and energy wasted if they are not used. If patients' histories are not filed so that they are readily accessible, and if they are not cross indexed to be easy of reference; if the auditor's reports are not available currently;

if vital records are not compiled routinely; and if all of this information is not studied with an intelligent point of view; they will be of very little value for purposes of analysis of performance, a practice which, while a secondary function in accounting, is a primary function so far as operation is concerned.

Early in this volume the statement was made that if the superintendent is tied down with too great detail he would lose the picture of the whole that is so essential to an efficient performance; it is again desired to drive home that same statement. If the superintendent is busy checking prices and extension of bills, looking over minor allowances to patients and all such petty details, that could be handled much better by someone else, the work of currently analyzing the results of performance will be relegated into the background, because there will not be time to do it. The superintendent of a hospital is supposed to be an individual who will direct its activities, and that direction can best be done by an intelligent knowledge of the things that have happened and a constructive point of view toward improvement on those happenings.

CHAPTER III

MEDICAL STAFF

"A wise physician, skill'd our wounds to heal,
Is more than armies to the public weal."

It has often been said that no institution is any greater than the staff which mans it, and the statement in itself is not debatable. After all, it is for the advancement of communal health that a hospital is created, and it is to the practitioners of medicine in that institution that the hospital must look for the materialization of its ideals.

ORGANIZATION

The time when each doctor was a self-sufficient unit in the diagnosis and treatment of his patient has gone. In order to obtain a maximum of medical efficiency, it is necessary that one should think more and more in terms of organized medical practice.

Accepting this as a statement of fact, the necessity for co-ordinating medical practice is apparent. The medical man by very reason of his training, his environment and his work is individualistic in his point of view, and the co-ordination of these individualists into a working whole is fraught with exceeding difficulty. Any scheme of organization of the medical department must, of necessity, guarantee a retention of the ultimate responsibility for the care of the patient by the medical man in charge, but at the same time it must so co-ordinate the work of all and complement the work of each that the maximum of good may be obtained from the composite.

Chart of Organization.—There is submitted as a part of this text a chart of organization of the medical department.

This chart merely shows in a graphic way fundamental principles, the acceptance of which alone will produce an efficient and harmonious organization. Any staff organization that does not recognize the supreme authority of each individual service so far as the medical care of the patient is concerned; any organization that does not contemplate wise administration on the part of the chief of the service; any organization that does not give a definite allocation of work to associates, senior and junior assistants, to the end that they in turn may reap the benefits of the greater experience of their chief, will fail. Certainly the greatest monument that can be built to any medical man is that of having assisted in giving to the world efficiently trained associates, and any scheme of medical staff organization must permit of the freest possible interchange of thought between the chief and the juniors so that the three functions of a hospital—the care of the patient, the study of disease and the teaching of disease—may be fulfilled to the maximum.

MEDICAL COUNCIL

On the chart is indicated a medical council created by the board of trustees or by the staff (the former being preferable). This medical council should act in a dual capacity: (a) as advisor on medico-administrative matters to the superintendent and board of trustees, and (b) as the executive body of the staff.

As a suggested personnel of this group is the chief of the department of surgery, chief of the department of medicine and the chief of one of the departments of specialties, together with the superintendent of the hospital and probably the chairman of the medical committee of the board of trustees.

This group is advisory only in its character. Any medical

Medical Staff Organization

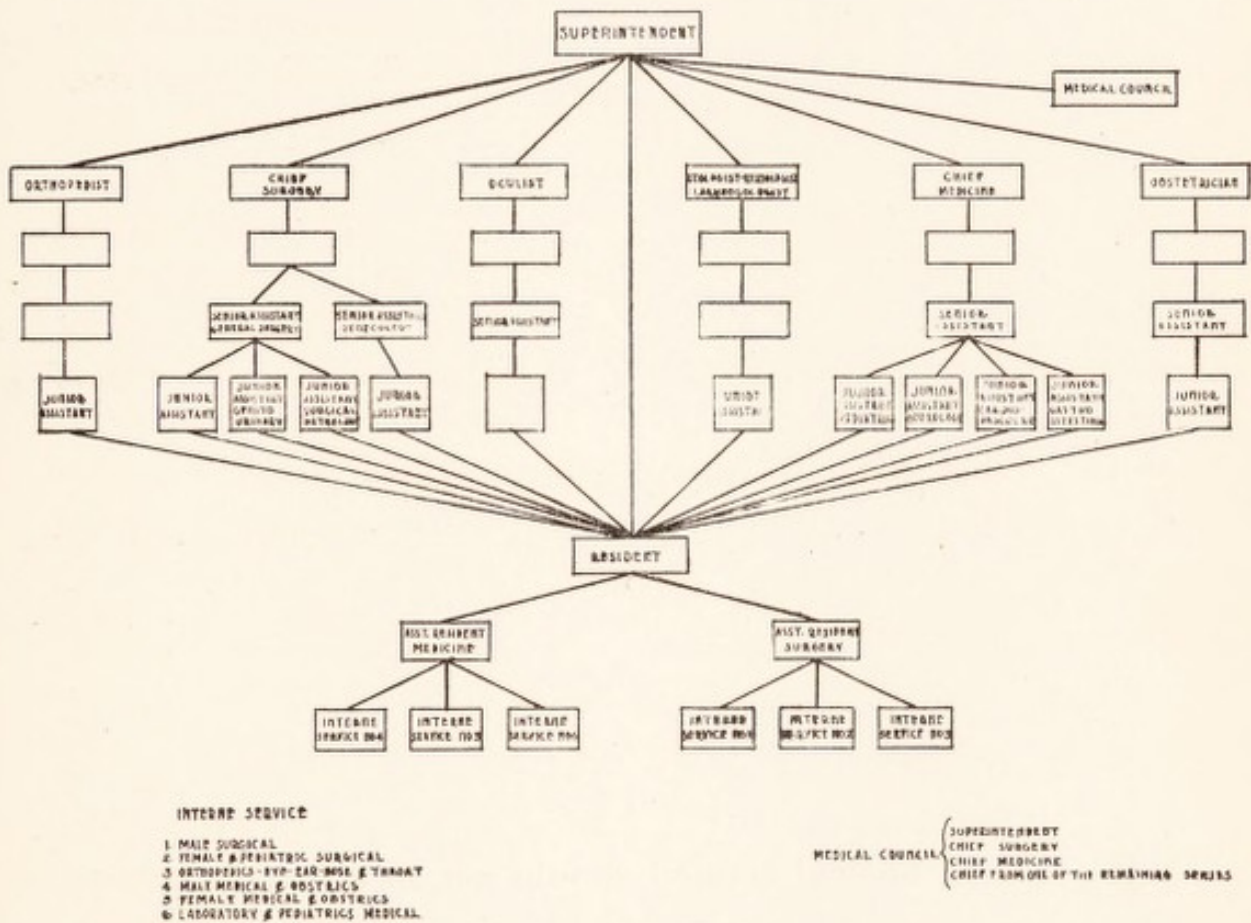


FIG. 16.—Illustrating departmentalization of the Staff, together with the centralization of control of the various departments. Please note the position of the Medical Council in the general scheme.

procedures or instructions having to do with the staff as a whole should be approved by this body and transmitted to the staff through the medium of the superintendent. This does not prohibit direct contact on the part of individual members of the medical council, as chiefs of their respective departments *per se*, with other departmental workers on matters pertaining to their department alone, but does preclude the possibility of members of the medical council giving instructions affecting general policies.

This scheme contemplates that on any matters affecting individual departments there be called into conference of the medical council either the chiefs or individual workers in the departments, in order that any decisions made will be arrived at after careful, conscientious analysis of the situation, and after the interested department has had the privilege of submitting its point of view first hand.

APPOINTMENT OF STAFF

No staff should be appointed for a period to exceed one year, reappointments to be dependent upon the type of service rendered. The appointment of members of the staff for indeterminate periods has a potentiality for producing a degree of inertia that is fatal to any staff's activity. It is much easier not to reappoint than it is to ask for a resignation, and the establishment of a definite period of appointment has a salutary effect upon staff performance. The *modus operandi* of appointment is as follows:

Prior to the time of appointment, either the superintendent of the hospital or the chairman of the medical council, should interview all medical department heads and ascertain their ideas as to appointments for the following year. The composite opinion of all of these chiefs should then be deliberated over carefully in medical council meetings, and the result of its deliberations should be made in the form of recommendations to the board of trustees. If the board of trustees has

a medical staff committee it should unquestionably be referred to that committee. If not, the board should act upon the recommendations of the medical council as such, and, if approved, the president of the board of trustees should make appointments for the period determined upon, stating in the appointment that it is made upon recommendations of the medical council.

Limit of Service.—In a great many institutions staff appointments are continued beyond a point of actual efficiency to the hospital. It is recognized that when a man has served faithfully for a long period of years and is reaching that time in life when he is not functioning to the degree that he formerly did, it appears ungrateful to terminate his tenure of office as a member of the staff, but if the hospital is to accept as a fundamental principle the greatest good to the greatest number, if it is to do justice to the younger man on its staff, and if further it is to do justice to the patients of the institution which it serves, some method should be originated to preclude the retention on the staff of individuals who have ceased to function.

Some institutions have adopted an age limit of sixty years or so, beyond which a man automatically ceases to be a member of the active staff. With the exercising of this rule there have been established emeritus staff positions, consultation staff positions, or whatever term it is desired to call them. An arbitrary assignment of a given age limit does work hardships. One man at sixty may be functioning to a greater degree than another man at fifty, but it is believed that a regulation of this type will, as a whole, have a fairer application than any other.

GROUPING OF DEPARTMENTS

In the formulation of any staff it is highly desirable to divide the entire group into the recognized specialties of

medicine, and in turn re-divide these groups into the individual sub-specialties of the major divisions, so that there will be an established service division for consultation purposes and a stimulus for the development of younger men. Reference to the chart of organization illustrates this division.

SUPPLEMENTAL OR COMPLEMENTAL ASSISTANCE

With the recognition that the product of a hospital is a well human being, and that members of the medical staff are the real producers of the hospital, without a doubt the relative necessity of lending every possible means to a successful carrying on of their work is indicated. Beyond the assistance of the nursing, the dietary and other departments, there also, with present-day practice of medicine, comes the necessity of complementing the medical practice with assistance of diversified nature, dependent entirely upon the scope of activity of the staff. Sufficient internes, sufficient technicians, clerical assistants in the taking of histories and in the recording of medical facts, all are a definite part of an efficient medical staff organization, and must be given very careful consideration in any scheme of organization.

ROUNDS

The index of the medical staff organization of a hospital is the type and character of the rounds made. Well-coordinated, well-planned rounds are an inspiration to the highest type of scientific work. It is through this medium that the interne, the junior assistant, and oftentimes the chief reap the greatest amount of educational benefit. It is through planned rounds that the greatest amount of consultation service is developed. Rounds should be so planned that they will not conflict with other rounds, with operating schedules, and similar procedures, so that interruption will be avoided.

CONSULTATIONS

One of the best methods of stimulating scientific institutional medical practice is a systematic method of securing consultations. Medical men are but human, and humans universally follow the line of least resistance, so that it is incumbent, if the hospital is to attain the highest possible efficiency in any activity, to set up a mechanism of performance and then to delegate its supervision to someone. These comments are particularly germane to the consultation service of a hospital medical practice. It is the obligation of the hospital to return an individual to the community as a producing unit at the earliest possible moment. If a person comes into the hospital with an abdominal condition, surgical in its aspect, and if in the course of diagnosis or treatment it is ascertained that there is a medical condition of the chest existent, it would seem logical that the patient be given the benefit of such expert advice as the hospital affords on the secondary condition. A properly functioning consultation service offers this facility. In addition thereto many obscure and interesting cases are brought to light the diagnosis and care of which afford an infinitely more diversified service than otherwise.

Consultations should be handled in a formal manner. The request for consultation should be as from one service to another, and not as between individuals. These requests should be made in writing. The findings of the consultant should also be made a matter of record and incorporated in the patient's history. The written record should be made irrespective of whether the consultation is consummated in the presence of the original medical man or not. Of course, such joint examination and discussion of the case are advisable.

ROUTINE PROCEDURES

One of the greatest advances in a well-organized staff is the establishment of certain routine procedures to govern

a large proportion of the work of an institution, as for example, the establishment of routine pre-operative and post-operative technique for appendectomies or herniorrhaphies; for certain types of test meals, or treatments and diets. All these procedures have a tendency to increase the efficiency of the institution by reason of the possibility of uniform training of personnel along the lines established. It is much easier than following a different technique for Doctor A, Doctor B, Doctor C.

INTERNES

The interne just out of medical school comes to a hospital for one purpose only—to acquire knowledge. Instruction that is not given along a prearranged course has not the degree of value that a studied curriculum has, and it is only in an organized staff that a planned curriculum can be set up and carried out. The establishment of an interne schedule before the interne group comes in and the carrying out of that schedule are highly important. It is true that this schedule is an administrative procedure, but that administrative procedure should not be made effective without the advice and counsel of members of the staff and the approval of the medical council. A definite course of lectures on various subjects is highly important and definitely welcomed by the interne group.

With the increasing demand for interne service and consequent shortage of available men to fill positions, the hospital that does not definitely plan its interne year is going to find itself woefully short in applications for interne appointments.

Hospitals assume a very definite obligation to the medical schools in taking internes for training, and a part of that obligation entails a report to those schools of the performance of these men. Such a report necessitates continuous record of their performance in the institution, based upon the opinion of the various members of the staff.

MEETINGS

The development of group consciousness is always necessary in organized performance, and no better medium of developing that point of view can be obtained than by regular meetings. In a large hospital they should be divided into two types of meetings: (a) staff meetings as a whole, and (b) service meetings. For the smaller hospital, staff meetings of themselves are sufficient.

Staff Meetings.—Referring to the first division, staff meetings may be of two types: monthly business meetings, which are in the main a decided waste of time; and monthly scientific meetings, at which there may be incidentally injected an item of business. These staff meetings should be separate and distinct from the hospital organization. The staff should be organized under a constitution and by-laws, and should elect its officers at stipulated periods and function as any corporate body, parliamentary law governing.

The primary purpose of these meetings is to stimulate the preparation of scientific papers and the presentation of cases. Younger men may have a hesitancy to discuss freely subjects submitted by their seniors. If these meetings are to produce the greatest good every effort should be made to eliminate the possibility of such restriction. As a suggestion, except in isolated instances, it is well to have papers prepared by the internes or junior staff men and the discussion opened or conducted by the chief or senior.

To make these staff meetings interesting at times requires a degree of energy that is stupendous. It should be a definite obligation of the administration of the hospital to lend its assistance to the success of these meetings.

Service Meetings.—The service meeting is designed to discuss currently in intimate detail individual cases occurring on each service. It is believed that in a hospital of over one hundred and fifty beds these service meetings should

be held weekly. They should be presided over by the chief of the service and should be attended by all the senior and junior attending staff and internes on that particular service. They are designed to furnish a medium of discussion of unusual current cases in the house, and should also review the work of the past period and definitely approve all discharges and the diagnoses made. Of particular moment is a discussion of unusual conditions arising, with analysis of the condition and determination of procedures for future work.

CO-OPERATION WITH OTHER DEPARTMENTS

With the establishment of the medical man as supreme in the care of the patients, certain obligations are immediately assumed by him, which cannot be overlooked. His position imposes upon him a degree of leadership. He must recognize that his work is of little value without the absolute co-operation of the nursing department, the dietary department and other activities of the institution, and his contact with these departments must be friendly; he must be mindful at all times of the obligations of his position, and recognize that his work can best be served by a kindly, courteous point of view towards his co-workers in the institution.

DESIRABILITY OF RESEARCH

The science of medicine can be advanced only by the accumulated contributions of practitioners of medicine, and there is no one opportunity of greater potentiality than that afforded by the hospital. The assembling of large numbers of certain types of cases offers an opportunity for observation and research that are not approached elsewhere. Every institution does not necessarily have to establish a department of research and make new scientific contributions, but no institution, no matter how small, should lose sight of the

fact that if the future of medicine is to be assured each hospital must be a very potent factor in the advancement of that science. To that end it must stimulate in its staff the desire for continuous research for new truths or for the advancement and improvement in the technique of old ones.

CHAPTER IV

SPECIAL DIAGNOSTIC AND THERAPEUTIC SERVICES

It is in diagnostic and special therapeutic services that a hospital really indicates its fullest acceptance of its responsibility as a medical center, and it is in this department that the greatest strides are made in perfecting service to patients.

The clinical practice of medicine in these times is not complete without having its services complemented by one or all of the services listed in this chapter. The diagnosis and treatment of disease have progressed to a point where the clinician alone cannot offer all of the services needed. The laboratory man, the roentgenologist, the physiotherapist, the occupational therapist are all aides to the clinician. With the recognition of this fact, the hospital must, if it accepts its true position in the community, furnish all these facilities in direct proportion to the demands of the community and of the staff that serves it.

DEPARTMENT OF LABORATORIES

There is no inclination to enter into a discussion of the professional phases of laboratory work. A treatise on this subject would occupy more space than is here allotted to the department, and is not in keeping with the purpose of this volume. It is desired, however, to emphasize the importance of a complete equipment in the department of laboratories and to set down the fundamental principles underlying its operation.

There are two phases in laboratory work: (a) that of providing assistance to the clinician in the diagnosis and treat-

ment of disease, the major phase in the general hospital; and (b) that of stimulating, initiating and carrying on research work.

The fact must not be overlooked that a laboratory cannot be considered a primary service; this position is held by the clinician, and rightfully so. It is not meant by this that the laboratory worker should be a handmaid to the clinician, and that his judgment and training should not be given the consideration it deserves, but the clinician must be unqualifiedly in charge of the medical care of the patient, and in the end analysis the laboratory man must follow the dictates of the clinician in furnishing supplemental service in the diagnosis and treatment of cases. Whenever one finds an inclination on the part of the clinician to rely primarily upon laboratory findings for diagnosis, one will find an inefficient medical practice. On the other hand, when one finds an inclination not to use the laboratory as a supplemental diagnostic or therapeutic service, one finds an equally inefficient service. The serological, bacteriological, chemical and pathological laboratories are but aids to check up the clinical diagnosis, and can only be so construed at all times.

Organization.—In the smaller hospital, expediency has dictated that most of the laboratory work be done by technicians with a more or less general training. In some of these hospitals certain laboratory processes are sent to larger laboratories. It is recognized that the extremely small hospital cannot furnish the facilities requisite to a proper interpretation of laboratory procedures, and that a method of referring work to larger laboratories answers the need of the institution better than by attempting to develop a laboratory with an inclusive service.

These small laboratories in a very large measure are supervised by a member of the attending staff particularly interested in laboratory work. While this supervision is desirable, and is to be commended, it does not offer the type of labora-

tory control that is desirable. A great many hospitals do not expend the amount of money necessary for an efficient laboratory performance, due to their inability—so-called—to afford it. This position is unsound. The administrative vision of the institution should prompt the acceptance of the fundamental truth that in a very large measure the success of a hospital is predicated upon the efficiency of its professional work, and its professional service cannot be efficient without proper laboratory service. With the exception of extremely small hospitals, the laboratory work of an institution should be in charge of a competent full-time or part-time laboratory man, and as the demands of the institution increase, his services should be supplemented by technicians trained in specific procedures, so that their work may be along the best accepted lines.

Whether or not this laboratory man should be a member of the attending staff of the hospital is a moot question; in the opinion of the author, he should not be. The chief of the department of laboratories should be considered as a department head of the institution the same as the principal of the school of nurses, the dietitian, the matron, the chief of the surgical staff and the chief of the medical staff. As a member of the medical staff his status is not as firmly established as it is if he is considered a department head.

In any event, the important thing is that there shall be a thoroughly sympathetic understanding between the chief of the department of laboratories and the members of the clinical staff. The clinician must know that the laboratory is willing to do everything he may demand. The laboratory in turn must know that the demands of the clinician are really pertinent to diagnosis and treatment of the particular case, and that it is based upon a sincere desire for assistance.

An appraisal of the end results of many hospital laboratories indicates that a large volume of work is done with but little effort on the part of clinicians to use the interpretation

of these results in the application of their therapy. To illustrate this important point, the ordering of complete urines promiscuously not only is not indicated but creates a volume of work beyond the ability of the well-organized laboratory to carry out, so that something is bound to be slighted; under such practice, on some particular case where complete urine tests are essential, the possibilities are that the laboratory will not do them with the necessary degree of efficiency. Sending typhoid stools on individual cases to the laboratory daily is ridiculous. It is recognized that the proper analysis of a typhoid stool takes three days. The work entailed in this daily analysis is unnecessary and breaks down the morale of the laboratory.

The co-ordination of the clinical and laboratory forces can be brought about only by close personal touch. The necessity for intimate personal contact between the chief of the laboratories and the chiefs of the individual clinical medical departments is not only desirable but absolutely essential to efficient operation.

CHARGES FOR LABORATORY WORK

Opinions vary as to the best method of financing hospital laboratories. If the hospital is the medical center of the community it serves, and if it is to furnish every known means for the scientific diagnosis and treatment of disease, then when a patient goes to a hospital he is not buying room service, or nursing service, or dietary service, or laboratory service, but is buying a composite diagnostic and treatment service. If this statement is correct, then there is no more justice in making a special charge for laboratory service than there is in making a special charge for ward nursing service, for housekeeping service, for dietary service, or for administrative service, and a charge for hospital service, whatever it may be, should be all-inclusive to cover every phase of the institution's activity. The financial status of each patient

is bound to be reflected in the attitude of the physician in ordering laboratory work. The assignment of special charges for laboratory work, such as a charge for Wassermanns, stool examinations and sputum, penalizes the scientific practice of medicine. In other words, the physician who does attempt to check clinical findings by every known means is placed at a disadvantage in the minds of his patients, by reason of the large amount of extra charges assessed. The man of unlimited means and the man of no means whatever will get a laboratory check of clinical findings, whereas the individual of limited means will be denied this facility.

If financial expediency demands that the income of the hospital be augmented by charging for laboratory work, then the only equitable way to do it, which will be productive of revenue and will preclude the tendency to restrict the use of the laboratory, is the determination in advance of the approximate cost of laboratory service, the number of admissions to the hospital per year, and the assessment of a charge for laboratory service to each individual admitted, which will produce an amount sufficient to carry the laboratory budget. Under such a scheme the admission laboratory fee should cover every laboratory procedure necessary. To illustrate, if it is determined that the laboratory budget be six thousand dollars per year, and there will be two thousand patients admitted during the year, then an equitable charge would be \$5.00 for private room patients and \$3.00 for semi-private and ward patients. By this method there will be created an earning sufficient to carry the cost of all laboratory procedures and to eliminate the necessity for special charges of any character. It is believed, however, the better way of handling this financial problem is by increasing the bed rate to such a point that this expense can be earned, and at the same time eliminate the necessity for special charges. The psychology of such a procedure is sound. Patients are prone to object to special charges, where they will not object

to flat rates. The average stay of the patient is from twelve to fifteen days. Every patient in the hospital gets at least \$3.00 worth of laboratory service, figured on a basis of commercial laboratory rates. An increase of twenty-five cents per day in bed rate will not be prohibitive, but at the same time will produce an increased earning from the hospital that will permit an extremely efficient laboratory service.

The second phase of laboratory work is that of the advancement of medical science. There is no question that a relatively small percentage of the human race are investigators, and that that ratio is no greater in the medical profession than in other walks of life of a comparable educational standard. Therefore, it is folly to presume that medical men will produce a relatively higher ratio of scientific research than others. Especially is this true when one realizes that the average medical man is dependent upon the practice of his profession for his livelihood and must devote certain large portions of his time to that work. At the same time, medicine is dependent entirely for its advancement upon the collection of data, the application of theories and the study of end results over large series of cases, and it would seem that the hospital with its vast wealth of material is the logical center for medical research. Certainly the general hospital laboratory should not be expected to produce new truths continuously, but it unquestionably should take charge of the wealth of clinical material available and to the maximum of its ability aid in the advancement of medical understanding. This assistance may be expressed in the improvement of existing technique, the development of existing theories into actualities, and in few instances the development of new theories and new technique. In any event, the stimulus of scientifically inquisitive minds cannot help but have a salutary effect upon the actual clinical performance of the institution.

X-RAY DEPARTMENT

Of outstanding importance in the development of an X-ray department is the securing of the person competent to interpret findings. The initial equipment of an X-ray department is not a great burden on any hospital, but the obtaining of personnel competent to interpret findings is not easy. While it is highly desirable that there be a full-time roentgenologist in charge, it is much better to have a part-time person qualified to render laboratory assistance to clinicians in their diagnosis than it is to have an incompetent technician or a technician qualified in the mechanics of picture-taking but unqualified in interpretation.

An X-ray department, equipped properly both as to physical equipment and personnel, unquestionably can be made a good investment in any hospital. The economics of such a plan is fundamental. If the hospital is functioning there is no question that a large proportion of the medical men of the community will refer X-ray work to the hospital. This is as it should be. It permits the roentgenologist's work to be done at a lower unit cost than if individual practitioners of medicine are compelled to carry the overhead expense of equipment, and, by reason of the larger volume of work produced, it permits of a more efficient interpretation of findings. The general practitioner, or the specialist devoting himself primarily to some other phase of medical practice, cannot hope to attain that degree of proficiency necessary to proper interpretation of X-ray findings.

Many schemes are offered as a basis of financing this activity. Some provide for the equipment being owned by a member of the attending staff, that individual sending out his own bills and making a contribution to the hospital for the use of the rooms. This scheme would seem unsound in that it is dependent upon one man for carrying out the

activity and, from an administrative point of view, it is fraught with considerable danger.

Another scheme provides that the hospital own the equipment and that the individual in charge of it be placed on a salary. This scheme would seem to have its drawbacks. The placing of a professional activity on a specific salary does not seem quite proper, nor is it conducive to the most efficient results.

A plan that is becoming increasingly popular is that the hospital own the equipment, the gross expense of operation of the department be charged against income, and the roentgenologist paid a net percentage of the proceeds of the department, varying from fifty per cent to seventy-five and eighty per cent dependent upon individual arrangement.

Whatever the financial arrangement, the hospital should set up a very definite control of charges made to patients, for the hospital will be judged by the performance of any activity within its walls, irrespective of what the internal arrangement of operation may be.

There is, of course, the necessity for supplemental technical service, dependent entirely upon the size of the activity. A combination of technician for the laboratory and the X-ray department has been found advantageous in smaller institutions. These technical assistants are of exceeding value but cannot be relied upon exclusively in rendering that type of high interpretive service that is essential to proper performance.

SPECIAL DIAGNOSTIC FACILITIES

There are other diagnostic and therapeutic facilities which must be mentioned in a chapter on this subject, chief of which are the electro-cardiographic service, metabolism service and allied activities.

The installation of the equipment for these departments is by all means a minor part of the problem of operation, but

of exceeding importance in the furnishing of complete professional service. If the demands of the medical service warrant, there is no question that they should be installed. They are a definite part of the hospital's contribution to combat disease, and it is the obligation of the hospital to see to it that the staff secures these facilities, if the staff in turn can offer a guarantee as to their proper use.

SPECIAL THERAPEUTIC FACILITIES

More and more is the clinician calling upon hospitals to furnish special facilities for the treatment of acute and chronic diseases. The physio-therapist has definitely been accepted as of material assistance in fractures, in the correction of congenital bone conditions, in the convalescence of certain pelvic diseases, and varied other phases of medical practice. Hydro-therapy is playing an increasingly strong rôle in certain types of cases. The same can be said of mechano-therapy and electro-therapy. It would be presumptuous to attempt to set up a hard and fast rule as to the extent to which hospitals should furnish these facilities to members of their staffs, but that they should be considered very definitely as an aid to the clinician's work is unquestioned.

Occupational Therapy.—Occupational therapy obtained its greatest stimulus after the War in the correction of mental and physical conditions, following that holocaust. It previously had attained some prominence in chronic and convalescent hospitals and in hospitals caring for the mentally sick, but had not attained much of a foothold in the acute general hospital. While it is true that occupational therapy will never occupy as strong a place in the acute general hospital as it does in the convalescent or chronic hospital, beyond a doubt there is a place for it in the general hospital, and its introduction into the wards and private rooms of hospitals is

productive of much good. It is especially valuable in children's wards.

As a complementary service to occupational therapy, which is largely diversion, the kindergartner and teacher have been introduced in a number of hospitals. As a result, the child may continue his lessons while convalescing in the hospital and avoid falling behind in its school work.

As a correlated activity is the introduction of a library into the general hospital. Many an activity of this type with a small beginning clearly demonstrates its worth after a short period of time and soon grows to a volume of service that is invaluable.

SUMMARIZATION

At first blush it would seem that the grouping of these various services is illogical, and that their work is not at all comparable. If one were to discuss the purely professional phase, the comment would be apropos, but in looking at such activities from an administrative point of view they are grouped with a specific purpose in mind:—to impress the reader with the thought that all of them are supplemental services to the clinician and should be so construed at all times in a discussion of their value.

CHAPTER V

NURSING

"Can there be any higher work than this? Can womankind wish for a more womanly work?"

No matter what the hospital's ideals of service are, it is to the department of nursing, to a greater extent than any other (with the possible exception of the dietary), that the hospital must look for an expression of its ideals to its clientele. It is the attitude of the nurse, her method of approach and her thoughtfulness for the patient's comfort, that creates favorable or adverse comments of the hospital's service. Therefore, a well-organized, well-functioning department of nursing is of paramount importance to the best interest of the institution.

The administration of the department of nursing has two fundamental phases: the actual nursing of the sick and the teaching of student nurses. It is not contemplated in this volume to discuss intimate details of teaching facilities or curricula, but only to touch upon this latter phase insofar as is necessary to illustrate fully the problems of the department.

ORGANIZATION

There is incorporated as a part of this text a chart showing the organization of the department of nursing. In it there has been an attempt to illustrate graphically the close inter-relationship between the nursing and the educational phases of the work. The principal and her assistants, including head nurses, cannot function to the fullest extent unless they are co-sharers in the training of the student nurse. While

the hospital is primarily created to care for the sick, it has another primary responsibility in the teaching of disease. The department of nursing must recognize, if the hospital is to serve to the fullest extent, that the teaching of student nurses is one of its three primary functions, and the organization must be so set up as to permit of the freest possible acceptance of this responsibility.

SYSTEM OF REPORTS

The administration of as diversified an activity as the department of nursing demands on the part of the central office a degree of intimate knowledge of current conditions in the institution as a whole. This information cannot be obtained, if the school is at all large, by any other than a well-thought-out, well-planned and currently maintained system of reports. It is a physical impossibility for the principal and her assistants to so closely contact with each of the nursing units, and with each of the educational activities as to permit of a knowledge of the actual daily performance. For instance, if the hospital is at all active in its operation, it is impossible without condition reports for the nursing office to have at hand sufficient first-hand information concerning condition of patients to permit it to assign adequate personnel on various units to meet peaks of nursing demand. Without some system of reports, it is difficult to arrange a program of training for each student nurse, so that her surgical, medical, special, and other branches of training may be given in a reasonably continuous period, and so that at the same time she may be assured rotation of service necessary to make her period of training inclusive of all of the services of the institution.

It is, therefore, important to install a system of morning reports showing the number of patients, the general condition of these patients, the nurses on duty, the contemplated time off duty, together with any extraordinary conditions which exist on the nursing unit. This morning report answers

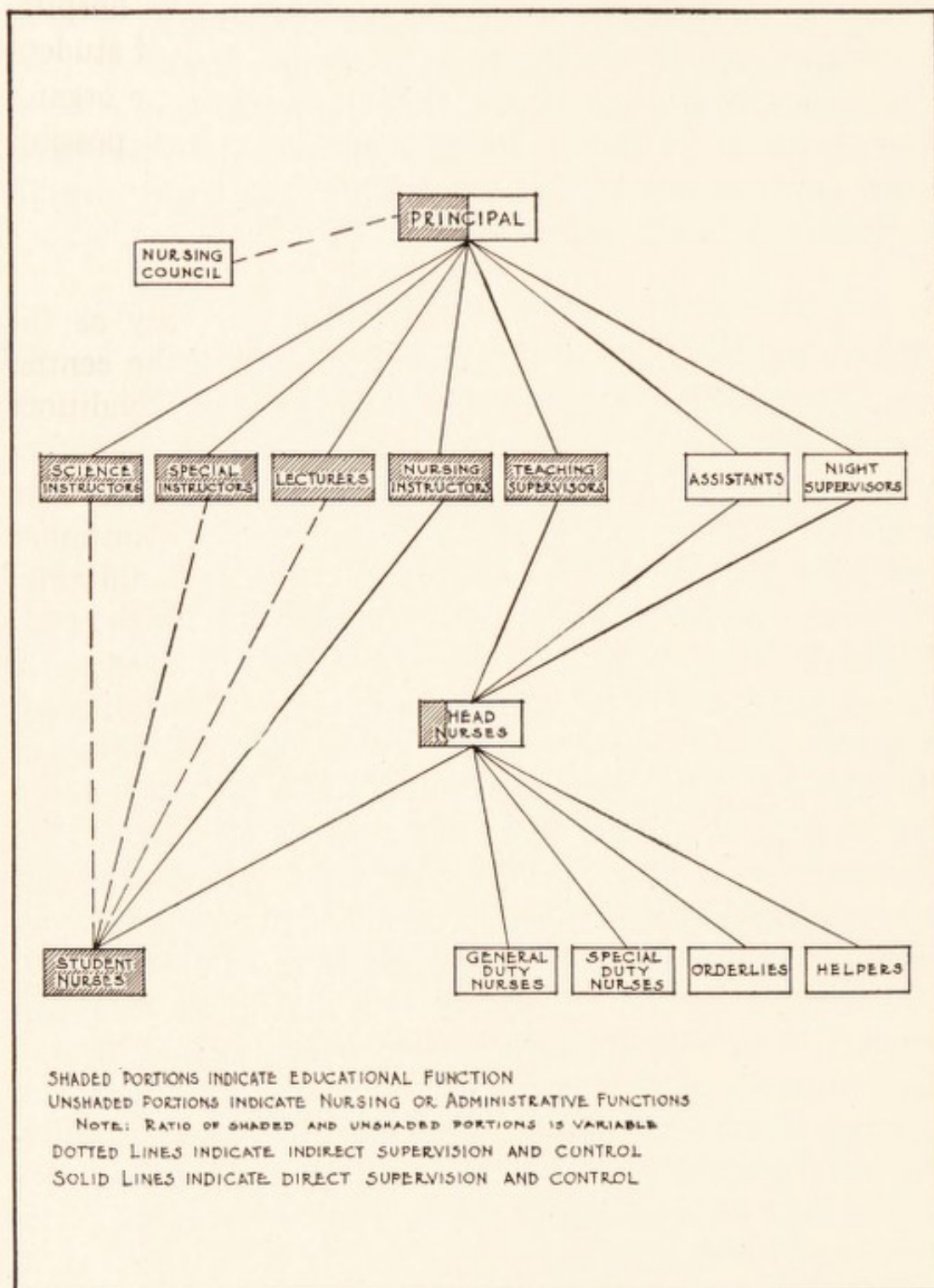


FIG. 17.—Nursing Department Organization Chart

several purposes. It is a basis for recording payroll performance; it permits the computing of the number of nursing hours actually spent; it gives a knowledge and consequent control of the student nurses on duty; and it furnishes a detailed report to the central nursing office of the condition of personnel on the various nursing units.

It is not intended to suggest that any system of reports is an adequate substitute for intimate daily contact with each ward of the institution by a representative of the nursing office, but such reports do furnish one form of ready reference that is invaluable in the proper administration of the department.

WARD INSPECTION

Daily ward inspection by the principal, or an assistant delegated for the purpose, is a highly essential part of any scheme of nursing administration. It has been conclusively proved that supervisory expense is justifiable in direct ratio to the number of persons on a given activity. This fundamental principle is applicable to any activity of life. The fact that it is more applicable in a function approaching in character that of the nursing of patients and the teaching of student nurses is so self-evident as to obviate much discussion.

The establishment of the head nurse as a basic part of the scheme of hospital administration is becoming more and more universally accepted, and rightfully so, but the supervisory service furnished by her, while essential, is not adequate. It is her job to know intimately the condition of patients on the nursing unit under her charge; to know that the technique as formulated by the institution is followed; to know that the individual orders for treatment, medication, and care are administered to patients; to administer to the physical needs of the ward, as outlined by the administration of the hospital; to supervise the training of student

nurses. All of these things are essential, but in addition there must be injected into the scheme a supervision of that head nurse and a periodic check of the performance of her unit to *know* that the policies outlined by the administration are carried out.

The ideals of the organization as formulated by the administration are of little value unless they can percolate through the personnel and find expression to its clientele. One cannot have an assurance of the application of these ideals without a very definite administrative supervision of each of the activities to the end that uniform practices and policies, after they have been formulated, may be maintained.

There is a further purpose for ward rounds. While constructive criticism is very essential in any organization, approbation of things well done is just as important, and it has a much more salutary effect upon the personnel than all the constructive or corrective procedures that may be instituted. A kindly word on a job well done, a smile, an approval of a well-run ward, are stimuli to better endeavor, and are immeasurable in their value.

To repeat, therefore, the importance of frequent intimate contact on the part of the central nursing office with each of the activities of the department cannot be over-emphasized. This practice is equally essential to other departments. Other departments, however, have not to the same extent the personal equation with which to contend.

DAILY LOG

Nursing service, as are other services of the institution, is a continuous performance. There is no department in which the necessity for the maintenance of a log of performance is more apparent. This log, in some instances, is in the form of a morning report transmitted orally by the night supervisor to a representative of the day nursing office. In the main this report has to do with the condition of patients.

Without question it serves very definite purposes, but its character is not sufficiently inclusive. It is believed that a more detailed report written in permanent form would be of much greater value.

To illustrate, Patient A requisitions a special nurse for tomorrow morning. This request is made of the night supervisor. She is unable to locate a special nurse. The consummation of a request should not be left to faulty memory. Or Dr. B. requests that a special piece of equipment be secured for a certain patient for the following day. This is too important a matter to trust to one's memory.

RATIO OF SUPERVISORS

It would be presumptuous to set down a hard and fast ratio of supervisors to actual personnel. That ratio would be increased or decreased in direct proportion to the character of the various nursing units. It is believed, however, that a definite maximum can be established, that a head nurse in direct charge of a nursing unit cannot efficiently supervise many in excess of ten persons. Where there is a unit requiring in excess of this number for actual nursing care, the head nurse should be given one or more assistants, the number dependent entirely upon the size of the unit.

HEAD NURSE OR CHARGE NURSE

It is gratifying to note the increasing number of hospitals that are adopting the usage of full-time graduate head nurses for various nursing units. Granting that it is desirable to stimulate initiative and responsibility on the part of students and that an opportunity to obtain experience in administrative work should be presented to them, there is no justification for placing a nursing unit in charge of a student without close supervision. If it is desired to offer such training to any member of the student body, she can be placed as an assistant to the head nurse, retaining by this method the con-

tinuity of control that only a full-time trained worker affords to a given activity.

The multitudinous duties of the position, the necessity for a well-established knowledge of the policies of the institution, and the further fact that in the hands of the head nurse rests to a large degree the control of waste and the elimination of lost motion, demand the reduction to a minimum of the turnover of supervisors. The efficiency of the nursing unit is seriously handicapped by the constant changes indulged in by some institutions.

Furthermore, everyone is not gifted with administrative ability.

The selection of a head nurse should not be a "hit and miss" matter. She should be chosen because of particular qualifications—not necessarily on the basis of having been a star student, or a good special duty nurse, but because she herself is able to do things well and, equally as important, is able to handle others, so that they may do things well.

Illustrating the point in question, a definition of an executive made by one of the nation's leading efficiency experts is given. "It is the function of an executive to plan, direct and supervise the efforts of others; to think for more than one; to multiply himself or herself through others. A good executive is primarily a teacher."

The position of head nurse in actual fact closely approximates, insofar as her own unit is concerned, the position of the superintendent of the hospital. There is no question that she should be granted absolute authority on the ward, subject, of course, to the guidance of the principal of the school of nursing. She should have control of, and her recommendations should be given great weight in, all matters of nursing personnel. In addition, members of the dietary and housekeeping departments serving on her unit should be made to understand that they are subject to her instruction. Of course, it must be understood that the head nurse recog-

nize the necessity for co-operation and co-ordination of the work of the nursing department with that of other departments, and that her directions to members of the staff of other departments will not be in conflict with the policies laid down by their respective superiors.

The head nurse should at all times be made fully cognizant of the policies of the institution so far as the handling of patients is concerned. It should be the primary obligation of the administration to see that all orders affecting such policies be transmitted to, and thoroughly understood by, each head nurse of the organization, and that she in turn transmit and interpret such orders to those under her charge.

It must be borne in mind that no thought is being given here to the teaching phase of the department of nursing, but one cannot lose sight of the fact that, in addition to her other duties, the head nurse must be equipped to furnish a very intimate supervision of the actual practical training of the student. The point is made only as indicative of another qualification that must be considered in the selection of the head nurse, with no thought of enlarging upon the policies of this phase of her work.

With the picture herein drawn of the duties of the head nurse, one is impressed with the ramifications of her work. She must have technical nursing ability, but except in a very small nursing unit, she should not be required to engage actively in the actual nursing of patients. This is true in direct ratio to the size of the nursing unit. Comment has been made that the amount of administrative work the head nurse must do in a great many of our hospitals precludes the possibility of constant supervision of the nurses under her in the actual nursing care of patients. It is the author's belief that this comment is very pertinent in a large number of instances and that it is one of the problems in the department of nursing of our hospitals which needs close study. It also is true that nurse training does not particularly fit one

for the vast amount of routine clerical work that must be done on the average ward, and some feel that the assignment of these administrative duties, in part, to a ward secretary is a solution of the problem. Difficulties surround the creation of such a position, one of the greatest being the apparent inability to secure co-operation in working out such a scheme from principals of schools. In the pressure of work there has been the tendency to withdraw individuals so assigned from the administrative work to other duties, which, of course, breaks down the scheme. Some one, some day, is going to offer a practical solution of this problem.

HEAD NURSES' COUNCIL

In the department of nursing there is a necessity (much greater than in any other individual department) for meetings, presided over by the principal of the school and attended by those in charge of the various units, for the purpose of discussing problems of mutual interest and their solution. Such a head nurses' council cannot help but be productive of good.

TRANSMISSION OF ORDERS

Proper transmission of orders is an exceedingly important function, so important that it cannot be over-emphasized. Most of the ills of life are ills of understanding. One would like to believe that most of the violations of orders are lapses of understanding rather than malicious desires to disobey. Verbal orders are always subject to misinterpretation. Therefore, it would seem essential that all orders affecting the vital function of the institution be given in writing. These orders, by very nature of the head nurses' work, are manifold in their scope; they affecting the actual administrative practice of the institution, nursing administration, nursing technique, establishment of uniform nursing practices, medical tech-

nique and establishment of uniform medical practices. All of these things are vital to the proper functioning of the institution, and the understanding of these orders should be safeguarded by every known means. Therefore, no more orders should be issued than are necessary. Let these orders be in writing. Let them be concise and let them be an assurance that each one of the organization affected knows the content of each order.

A loose leaf system of ward orders, similar in form to the house order book previously mentioned, and with all of the flexibility that such a system provides, is unquestionably the best method of disseminating such information. A loose leaf book can be kept up-to-date with a minimum of effort. Corrections and modifications are made with greater ease as compared with the corrections made in a system of bound orders that some institutions have. A copy of this ward order book should be maintained in one volume for the different types of orders or in a separate volume for each type. Several suggestions are made as to the content of these books.

- A. The establishment of a standard equipment for the unit.
- B. Administrative orders on the care of equipment and the handling of inventory.
- C. Administrative orders on handling of flowers, packages for patients, handling of clothes, handling of valuables, and visiting.
- D. Nursing orders establishing definite nursing procedures, such as the giving of certain types of baths, the method of taking temperatures, the recording of charts, and procedure of like nature.
- E. Certain medical procedures, such as pre-operative and post-operative treatment of given types of patients; method of administration of different tests.

These suggestions could be continued indefinitely. They are merely inserted in an attempt to make plain the many opportunities for establishing uniform practices.

UNIFORM WARD PRACTICE

The preceding chapter attempted to outline a method of transmitting ward orders. The ward order book reaches its ultimate value when it formulates a uniform ward practice for all of the routine nursing procedures of the hospital. If the medical staff is functioning properly, there is no reason why it, as a staff, cannot agree upon certain methods as best in a given instance and agree to that method being established as standard, such as a uniform method of pre-operative preparation for certain types of laparotomies, a uniform method of post-operative treatment in the same cases; uniform technique of dressing certain types of cases. The efficiency of the nursing service where such uniform practices are established as compared with a nursing unit without such advantages is marked.

A new student coming on the ward is not coming into a new activity. She is coming into an activity whose operation has been uniformly established throughout the institution. The graduate nurse, being retained for general duty, merely has to study her ward order book and she has before her in concrete form the technique of the various procedures in which she will be engaged. A new group of internes coming into the institution will have before them in a graphic form the practice of the institution. As a consequence, the changes in personnel that every institution has is not fraught with destruction of efficiency to the same degree as the institution which is without uniform practices.

Tray Service.—As a corollary to the establishment of uniform practices is the establishment of a tray service, a suggested list for which is made a part of this text. Instead of being compelled to look in several places for the necessary

equipment for a physical examination, if there is an examination tray set up and ready for use, the time of both the doctor and the nurse is conserved.

TRAY LIST

Catheterization
Eye
Emergency dressing
General examination
Thermometer
Hypodermic
Hypodermoclysis
Mouth wash
Preparation
Medication
Stomach
Mortuary box
Poultice and stupe box
Surgical dressing
Vaginal
Breast
Dressing carriage
Prostatic examination or
Male catheterization
Blood work

As an example, the following is the content of the general examination tray:

Laryngeal mirror
Flashlight
Finger cot
Percussion hammer
Aural specula
Wooden tongue depressors
Tape measure
Nasal speculum
Towels, plain, 2; auscultation, 4
Glass slides in box
Head mirror
Small kidney basin
Pins
Applicator in tube (sterile)
Gauze handkerchief
Toothpicks
Test tubes, 2

Camel s-hair brush
Red and blue pencil
Sphygmomanometer
Lubricant
Angular forceps for ear work
Gloves, 2 pairs

Handling of Charts.—With the necessity for a detailed medical record of patients' conditions, in addition to intimate nursing records, there is the need for establishing proper methods of handling these charts. Patients' charts, first of all, should be easily accessible to members of the medical and nursing staff, who are intimately in contact with the patients. They should not, however, be available to the patient, the patient's friends and relatives, or to others than those definitely taking care of the patient except by special permission of the attending physician. Institutions must accept as a basic principle the fact that patients' charts are confidential information, the content of which is given specifically for the purpose of aiding proper diagnosis and treatment of the patient's condition. Hospitals cannot place too much emphasis on their obligation to maintain inviolate the sanctity of these records.

The problem of filing current charts is rather difficult of solution when one considers the demands that are made on them. First of all, charts must be accessible so that they may be easily noted by the nursing and interne groups and must be readily available for the attending physician on his rounds. They must be under almost constant supervision to preclude the possibility of their being improperly used by others than those for whom intended. The type of filing is dependent in a very large measure on the physical layout of the nursing unit. If the head nurse's station is located adjacent to the chart room, as it rightfully should be, the control is simple; if not, there must be other means devised. The important points are that all records covering the

patient's care, including the medical and nursing notes, must be kept in one place and one place only, and that the file must be so controlled as to insure the sanctity of the charts.

SPECIAL NURSES

One of the greatest problems of hospital administration is the control of special duty nurses. A great many institutions have found that the attitude of special nurses cannot but militate against harmonious operation. The special nurse feels that she is there to satisfy the needs of one individual only, and since she is not a member of the hospital organization she is not subservient to its rules and regulations to the same degree that are members of the permanent personnel. She has not the community of interest that the permanent staff has, and is not, in the main, as familiar with the practices of the institution. All of this contributes to a lack of understanding and consequent difficulties. Many special nurses believe that because they are retained by an individual they are not even responsible for their performance to the head nurse or the head of the department of nursing. A hospital cannot but accept full responsibility for every individual working within its walls. This being true, a special nurse, irrespective of who retains her, must subscribe to the practices of the institution, and the institution in turn must accept full responsibility for her acts. Further, if a special nurse refuses to comply with the established practices of the institution, it not only is the privilege of the hospital but it is its duty to dismiss her from the case and secure another nurse for the patient.

In the establishment of this fundamental point it is, of course, obligatory that the hospital see that the special nurses coming into the institution understand the uniform practices established. It is suggested that there be compiled a set of rules and regulations governing the conduct of special nurses,

and that each special nurse presenting herself for duty at the hospital be furnished with a copy of these rules and regulations as a guide to her performance in the institution.

HOSPITAL HELPERS

There are but few instances where institutions are not definitely confronted today with a shortage of personnel. This condition, of course, is not limited to hospitals; it prevails in practically every activity of life, but the need for nurses is so vital in the social scheme that a shortage in this group must be met irrespective of what solution is arrived at in other walks of life. It is being met, in a measure, by the stimulation of student nurse enrollment through publicity, and by attempting to place the nursing group upon a higher standard of education and social status. Another and equally potent method of solution, so far as hospital practice is concerned, is the conservation of the nurse, to insure her exclusive attention to actual nursing care of patients, and the delegating of other duties formerly assumed by her to the hospital helper, who has become a new and increasingly important factor in institution operation. The introduction of hospital helpers into the department of nursing met with a great deal of criticism in the beginning, but wherever they have been installed there has been found an increasingly large place for them in the scheme of operation.

The hospital helper cannot be thought of in terms of a ward maid. She must have a degree of training or, if the hospital is to obtain the raw material, she must be trained before she can reach the maximum of her value to the nursing unit. To her can be delegated in a very large measure all of the activities of the nursing unit that are not actual nursing care and, when one analyzes the volume of energy that can be conserved by such a method, he will appreciate the great need for such an individual.

ORDERLIES

The problem of orderlies is one with which every hospital is confronted. There was a time when orderly material was available, but that time has passed. The necessity for some mechanism for training orderlies is very apparent. In some institutions the problem has been met by the installation of a head orderly, responsible to the principal of the school of nurses for the securing of orderlies and for their training.

WARD INVENTORY

The nursing unit in its daily operation uses with but few exceptions practically every commodity that is needed in a hospital. At this point of consumption a great many savings can be effected. The establishment of definite standards for fixed equipment and usable supplies is requisite to the efficient management of a unit. This equipment is charged to the unit, to be replaced only by exchange. The system is covered in full in another part of this volume.

The taking of the ward inventory and the adjustment of that inventory to comply with standards established are highly important procedures, if one is to keep the service of the unit up to par. It is rather disheartening at times to note unexplainable losses, such as water bottles, thermometers, china, etc. Unless there is some definite plan for taking up this shrinkage, and at the same time removing from the unit the articles that are over-standard incident to borrowing, there will not be the completeness of equipment that is essential to proper operation.

HANDLING OF PACKAGES AND MESSAGES

One of the bugaboos in the administration of a nursing unit is the care of flowers, packages and messages for patients. These articles should undoubtedly be originally received at some central point, promptly transmitted to the ward, and delivered by the head nurse, or some one delegated by her to

this task, to the individual for whom they are intended. A prompt, accurate consummation of this service is highly important. The monetary value of the flowers is but a small part of their value, and an incorrect delivery of flowers and messages has a potentiality for complaint which is rather hard to combat.

SUMMARY

This discussion of a department of nursing would appear to place little stress upon the central nursing office and attach but little importance to the qualifications of the principal or her assistants. Such is not the intention. One must not lose sight of the fact that this chapter has discussed but one phase of the department's work, that of the actual nursing care, and that there is still to be considered that large group of activities the carrying out of which, in the main, is a responsibility of the central nursing office, although the head nurse does make a definite contribution in this respect. One must not forget the fundamental truth that, irrespective of the activity, centralized control, supervision and motivation are the key to performance. In a department of nursing the same centralized authority and the same centralized responsibility for results pertain as in the other departments of the institution. The problem in its fundamentals in the nursing office is no different than the problems of the dietary, the housekeeping or the administrative departments. This method of presentation has been developed to stress the important function of the department, the care of the sick, and to emphasize the basic truth that no matter how splendid are the ideals of the administrative head they are of little value unless they percolate throughout the organization and are expressed to the clientele. The largest number of contacts made with that clientele are made in the nursing of individual patients by members of the nursing department.

CHAPTER VI

DIETARY

"You cannot diet a patient from a book."

UNDER the arrangement suggested in this volume for the activities of the institution, the dietary performance will absorb in excess of twenty-five per cent of the total expense of operation. Its importance as a primary function is self-evident. The dietary of the hospital in the past decade has undergone the same degree of change as has the medical practice. Instead of its function being the preparation and service of regular diets, as was the status in the past, a properly functioning dietary department of a hospital today is prepared to meet every dietary need of the profession of medicine, to the end that the problem of preparation and service of special dietary formulæ, as developed by the physician in conjunction with the dietitian, offers a very large percentage of the problem of operation of the department.

DUTIES

In setting forth the general divisions of duties of the dietary department, no thought is held that they are listed in the relative order of their importance, but merely to establish a basis of discussion. This division is:

- A. Preparation and service of patients' regular diets;
- B. Preparation and service of patients' special diets;
- C. Correlation of medical and dietetic problems and the teaching of dietetics;
- D. Preparation and service of food for personnel.

Each of these four major divisions of service offers a variety of problems which will be dealt with in this chapter.

ORGANIZATION

A radical departure from the accepted practice of most institutions is recommended in the organization of the dietary department. It is believed that the problems of preparation and service are so closely inter-related as to preclude the possibility of separating them, even in the slightest measure, with any degree of success. There are set forth three different schemes of organization for the department. No brief is held for their absolute adaptability to any one institution. The principle alone is important. Each individual hospital will have to meet the problems of organization as may best suit its needs.

The first point to be amplified is that the dietary function is of sufficient importance and its problem sufficiently atypical to warrant its establishment as an entity, the head of the department reporting directly to the administration. Specific adverse comment is made on the practice in many institutions of having the dietitian under the principal of the school of nursing and responsible to her for her performance. The steward, if he is in charge of the dietary activity, or the dietitian, if she is in charge, is a full-fledged department head, and must be accepted as such in the scheme of organization.

The second point, and one equally as important but not generally accepted, is that the dietary control, or the control of the department head, should extend from the time the preparation of food is begun until the time of its ultimate service to the patient. Hospitals buy good food, and, to a greater or lesser extent, prepare it properly, but almost universally are unsuccessful in the service of that food, with the result that the most palatable meals reach the patient's bedside in a decidedly unsatisfactory condition. The primary

reason for this lies in the lack of proper facilities for transportation and service. Another important cause lies in the fact that there are long lapses between the arrival of food on the floor and the service to the patient. This is due to the incorrect practice of imposing the service problem on the nursing force, and the failure of the nursing group to accept the responsibility for the immediate service of the meal on its arrival. Much better results can be obtained by having the dietary control extend through the service, so that there will be no shifting of responsibility between one department and another as to the condition of the meal on its arrival at the bedside.

The three schemes of organization mentioned are as follows:

Scheme A provides for a steward responsible for the entire dietary activity, with a chief cook in charge of the main kitchen under him and a dietitian responsible for the teaching of dietetics and the serving of special formula meals.

Scheme B provides for the steward in charge of the preparation of regular diets for patients and the feeding of personnel, and the dietitian responsible for the special feedings and the teaching of dietetics. This scheme is unsound as it sets up a dual control that is not conducive to harmonious relationships.

Scheme C provides for a dietitian in charge of the entire activity, with assistants of sufficient number to provide for the care of the various subdivisions of the activity.

Each of these schemes has its merits and demerits. None of them will work without a realization on the part of the administration that supervisory expense in an activity such as the dietary department is indicated to as great or greater degree than in most of the activities of the institution. The dietary department is an activity of long hours, requiring three hundred and sixty-five days a year of service, and the

necessity for assistants to supplement the services of the dietitian or the steward is very important.

ARRANGEMENT OF FACILITIES

Concerning the planning of the dietary department of a hospital, it is desired to submit one thought only. It is not within the province of this volume to discuss intimate details of planning, but the fact must be emphasized that the hospital dietary problem is entirely different from the hotel problem. In the hotel there exists the necessity for *à la carte* service, and the consequent equipment of the kitchen with facilities to meet this service. In the hospital quite the contrary is true. In the hotel, serving rooms are immediately adjacent to the kitchen, and service is dependent in a large measure upon the making up of a tray in the kitchen, or in a room immediately adjacent thereto, and its service to the patron. In the hospital there is need for long travel incident to service. The hospital must not make the mistake of developing its kitchen along hotel kitchen lines, for the end results will not be satisfactory.

Central Kitchen.—Much has been said both pro and con as to the desirability and undesirability of serving all meals from a central kitchen. In favor of a centralized plant it is said that by a combination of activities there can be a material reduction in labor cost since the necessity for duplication of work is eliminated. Up to a certain point there is no debating this statement, and in a hospital of less than one hundred and fifty beds, unless there are some very definite contra-indications, all food preparation, both for patients and personnel, should be conducted in one kitchen. In a hospital of more than this size, however, the solution is not so positive, and a great deal is dependent upon the type of the hospital. There comes a point in any activity beyond which increased volume is a detriment rather than an aid, and it is

believed that when this point is reached the best possible division of work is the removal from the patients' kitchen of the preparation of food for the personnel. This division, of course, does not preclude a central bakeshop, ice cream manufacture and activities of a comparable type.

Special Diet Kitchen.—Closely related to the central or patients' kitchen should be the diet kitchen for the preparation of special diets. If this room can be developed in the kitchen suite so much the better, but irrespective of the site of its development, a special diet kitchen should be a separate room equipped completely for this work.

There are, of course, refinements of development which may be considered, one of which is the provision of a lecture or class room for the instruction of patients of the hospital in the preparation and use of dietetic formulæ, and of a dining room for the service of special formula meals to ambulant patients, for which the hospital makes a charge. Concerning these, no hard-and-fast rules can be set down; the demands of the individual hospital must govern in the setting up of such facilities.

Milk Formula Room.—The preparation of milk formulæ and the pasteurization and sterilization incident to a large pediatric service, both in- and out-patient, present further problems that require consideration. If there is a comparatively small service this formula preparation can be carried in the special diet kitchen, but if the service is of any volume, it requires a separate room.

Dishwashing Room.—Few of our hospitals have recognized the extreme desirability of centralized dishwashing, not only from the standpoint of labor-saving, which is a material one, but from the standpoint of the conservation and the control of loss of china and silverware. The location of this central dishwashing room is not always easy to determine, but with the development of proper facilities for carry-

ing used dishes to and from the various wards such a room can be made exceedingly advantageous.

It may not be amiss at this point to enter into a short discussion of the proper method of washing dishes. Assuming that it is desirable to use mechanical means of washing, the efficiency of operation is dependent entirely upon two things, taking for granted that all standard dishwashing machines have a relatively high degree of merit: (1) the selection of a proper washing material, and (2) the care of the machine itself. The importance of keeping the dishwashing machine thoroughly cleaned and free from accumulations cannot be too strongly emphasized. Unclean dishwashing machines are, if such a thing is possible, worse than the foulest dish cloth. In order to keep the machine clean, it is necessary to select the right kind of washing material; a great many of our unclean dishwashing machines are traceable to the use of incorrect materials.

Under no condition should soap in any form be used in a dishwashing machine; nor is it correct to use a powder with a high causticity. In the first instance, the saponification of the greasy foods, which are naturally left on soiled dishes, will furnish all the lubrication that is necessary in the washing of dishes, whereas soap does not inject those ingredients necessary to free rinsing which is so important. Strong caustics act as a binder to objectionable deposits and also will not rinse freely. Strong caustics attack both the glazing and the decorative effects on the dishes. The proper substance to use is a washing material that will completely emulsify the greases, and at the same time will rinse freely, to remove all deposits of any kind from the dishes.

Then, too, the temperature of the water is important. Water for the washing tank should never be in excess of 145 degrees Fahrenheit. Any higher temperature has a tendency to bake the deposits on the dishes. In the rinsing tank, however, in order to permit of easy drying with a minimum of

manual effort, the water should be from 180 to 212 degrees Fahrenheit.

PREPARATION AND SERVICE OF PATIENTS' REGULAR DIETS

Very little more need be said on the preparation of patients' diets except to urge a variety of menu. For economy's sake, a great many hospitals prepare their menus in a series of from seven days to thirty days. This practice is highly desirable and permits a planning of performance that is not possible in any other way. However, the hospital should not resort to calendar week menu periods. With such a period, there is a tendency to establish automatically certain days upon which certain dishes will be served, and one will hear the comment of the patient: "I know we are going to have roast beef today, because it is Tuesday."

Medicine today is recognizing the therapeutic value of proper feeding. The stimulation of the jagged appetite of a convalescent patient is an exceedingly important thing. All persons do not like the same foods, and if the opportunity is presented patients to order special items once in a while, the beneficial results to be obtained will be unquestionable, and it will be found that the privilege will seldom be abused, assuming, of course, that their regular diet is palatable.

If it were possible to prepare each individual tray in the central kitchen, and immediately carry it to the patient, the situation would be ideal, but institutions have developed to a size which precludes any semblance of this procedure. There then develops the necessity for devising ways to approximate the condition and this has been met by food carts, supplemental serving kitchen, and similar means. Practically all hospitals have developed in their building scheme an individual serving kitchen on each nursing unit, which has been used in various ways. Almost universally these kitchens are used as sub-distributing stations from the main

kitchen; food carts are sent to them with food in bulk; the food transferred to steam tables, ban marie or hot plates; redistributed to patients' trays, and finally served to patients in their rooms. Several objectionable phases to this type of service immediately develop.

First, are improperly constructed food carts that do not hold the heat, and improperly built food receptacles that are not insulated.

Second, the large number of handlings that are necessary in such a system.

Third, the fact that re-application of heat has a harmful effect on many hospital dietary products.

Fourth, with those supplemental kitchens and their equipment, there is a tendency on the part of the personnel to feel that the food is being kept hot and, therefore, there is no particular hurry for serving it.

Another factor that definitely enters into a failure of this type of service is the lack of facilities in the serving kitchen for the proper warming of dishes.

To meet these objections, there have been developed super-heated food carts, either with electric, water or metal-heating elements. There have also been developed jacketed or insulated containers. These improvements meet the problem in part, but their successful operation is predicated, in a large measure, upon quick transportation of the food after it has been placed in these receptacles. Certainly broiled steak does not lend itself to an indeterminate stay in any type of container, and the more quickly it can be served after it has been taken from the stove, the better it is.

Another type of service which is meeting increasing favor is the application of the principle of the thermos bottle to food carts, i. e., the introduction of an insulated food cart which is comparatively air tight. The service to the patient is then directly from the cart. This scheme contemplates service of the individual plate direct into the food cart from

the stove in the central kitchen, for transportation to the ward, and from the food cart direct to the patient's tray. This system eliminates the necessity for using the serving kitchen on the ward, as such, but it is still necessary for the setting up of trays, preparation of nourishments, accumulation, scraping and preparation for return of soiled dishes.

TRAY SERVICE

It is extremely necessary to give careful thought to the type of service rendered patients. If they are in the habit of having course dinners, and the entire meal is served at one time, the hospital is expecting individuals to acclimate themselves to a new condition or habit at a time when they are abnormal. In all probability the results will be that they will not enjoy their meals, and the department's energies will in part be wasted. This, in a modified way, can be improved upon by serving the soup, entrée and dessert as separate courses.

If the patients are accustomed to dainty china, and the hospital does not prepare their trays in a like manner, no matter how palatable the food may be, the effort has been largely wasted. If, on the other hand, trays are made attractive; if course service can be had; if the china is dainty in appearance, manufactured especially for tray service so it will not be cumbersome; if the tray can be assembled artistically and not merely thrown together—how much better will be the effect on the patient? No one thing in hospital operation will create an impression for good or evil more quickly than will the type of meals given and the character of their service.

It is recognized that fine china is more expensive than crockery, and that the incidence of breakage will be higher, but the relative difference in terms of dollars and cents between heavy crockery and the daintiest of domestic china will be infinitesimal as compared with the good to be derived.

PREPARATION AND SERVICE OF SPECIAL PATIENTS' DIETS

The medical profession has made vast strides in recent years in understanding the diseases of metabolism and of the gastro-intestinal tract, and is coming to a realization of the fact that the therapy of these diseases is in very large measure a dietetic one. Toward the establishment of tolerance and a basis for formula feeding, many physicians are requiring their patients to come into the hospital for short periods of time, and in the course of this procedure the need for the closest possible relationship between the medical advisor and the dietitian is imperative. The necessity for frequent intimate contact of the dietitian and members of the staff, and an equal necessity for intimate contact with the patient, to know that the diet is assimilated and is as palatable as is possible, makes it necessary that the dietitian be relieved of other duties permitting her to make these contacts. This means the definite appointment of some member of the dietary force, preferably the head of the department, who will be available for staff conferences and for detailed rounds of the institution, primarily for the purpose of checking up the result of scientific feedings but also to know the attitude of patients in the institution on regular diets.

Proper feeding is so important, and the technique of administration is so involved in those types of cases that the dietitian must accept the responsibility for its proper service, and must set up a mechanism which will give her absolute knowledge that the feeding, as prescribed, has been served and actually consumed, or if not, a record of the fact made. This is a point to which some persons will object, contending that it is the responsibility of the nurse and should be assumed by her. There is no desire whatever in this discussion to take away from the nurse her responsibility or her authority, and it is sincerely believed that the student nurses should

be trained along these lines, but the student nurse or the graduate nurse on the ward is primarily interested in the nursing care of patients and, unless she is unusual, she is not apt to give great attention to dietetics, and the dietetics must be given primary attention if proper results are to be obtained.

CORRELATION OF MEDICAL AND DIETETIC PERFORMANCE AND THE TEACHING OF DIETETICS

The previous division has outlined the necessity for close correlation of medical and dietetic activity, and very little can be added to the discussion except to emphasize the importance of this piece of work.

Another phase of dietary activity is the teaching of student nurses and student dietitians. The practice common in many hospitals of introducing student nurses into the diet kitchen in the capacity of "super-maids" is wrong. It does not give them the type of instruction they need, and is decidedly an uneconomical practice from an institutional point of view. A student nurse should be placed in the diet kitchen for the purpose of correlating theory and practice in dietetics. It cannot be hoped that she will become a full-fledged dietitian in the short period of time allocated for this work, but there is no question that she can, if the curriculum is properly planned, obtain at least the rudiments of the work, and in this way better fit herself for her profession. This cannot be done properly unless she is taken through all steps in the preparation and service of scientifically prepared diets.

PREPARATION AND SERVICE OF FOOD FOR PERSONNEL

At no time should the problem of the dietary department in satisfying the tastes of the personnel be belittled. The problem of menus is a difficult one even in the home where the housewife is able to cater to individual idiosyncrasies.

In an institution, which is the home of a large proportion of its personnel, there is no opportunity to cater to individual likes and dislikes, and still less opportunity for changes; therefore, there is a larger proportion of dissatisfaction. Recognizing this, the dietary department must lend as much aid as is possible in the solution of this problem, so that the hospital can give as great consideration as means will permit to the likes of the personnel. This does not mean expensive menus, but rather an application of energy in the preparation of well-balanced and tasty meals. Of course, the type of menu that will be acceptable to the mechanical and housekeeping group will not be acceptable to the nurses. There is an entirely different demand to be met.

Environment has a great deal to do with the enjoyment of meals. The dining rooms should be made as pleasant as possible, and the meal hour should become a time of relaxation rather than a time of stress.

Cafeteria Service.—Much has been written on the relative merits of cafeteria or waitress service. A properly run cafeteria is more economical than waitress service, not only in saving of labor cost, but in saving of food and the possibility of a greater variety of food. There is no gainsaying the fact that many hospital attaches eat in cafeterias when away from the institution, by reason of their lower cost, but cafeteria service three hundred and sixty-five days a year, three meals a day, becomes monotonous and its desirability is questionable. It is possible to arrange serving rooms so that cafeteria service can be employed for one meal and waitress service for the other two, thereby reducing the number of hours for waitresses.

SUMMARIZATION

The dietary function of a hospital is not by any means easily fulfilled. There is the need for the scientifically balanced meal, properly prepared and properly served, but

the much greater need exists for palatable meals. There is nothing inconsistent in serving a scientifically prepared meal palatably, providing effort is directed along these lines. Normal humanity is hard to please. Abnormal humanity is almost impossible to please through its palate. The necessity for continuous, constructive endeavor in this department is very apparent.

Second only to the nursing department, in directness of contact with the patient, is the dietary department, and second only to the nursing activity is the measure of the institution's success gauged by the patients' reaction to the dietary performance. That a successful dietary performance is a decided asset to the institution is unquestionable.

CHAPTER VII

SOCIAL SERVICE

"The adjustment of man to himself and to his environment."

WITH the recognition of the many contributory factors that enter into the successful diagnosis and treatment of disease, there has been injected into the health field a new factor in diagnosis and treatment, known as social service. A popular interpretation of the term "social service" is not quite in keeping with the true purpose of the work. Many institutions feel that the social worker is merely a means to greater refinement in financial diagnosis. While it is true that a social diagnosis may be used to this end, it is by no means the true purpose of the work, and it cannot accomplish its maximum benefits if this is the interpretation to be placed on it.

The origin of social service is recent. It was given impetus by a few medical men who recognized that the greater part of their energy was being dissipated in overcoming the inability or lack of inclination of dispensary clients to follow the therapies advocated. This was the beginning of the movement, and it was on this basis that the value of social service was demonstrated.

With its increasing activity in the health field, the scope of its work has been enlarged to include many other duties chief among which, and today its primary purpose, is the bringing to the clinician a social picture of the client to aid him in diagnosis. The patient's environment may have been contributory to the medical condition, and having been presented with a true social picture of the patient, the clini-

cian is enabled to administer therapy which is practical in its application.

ORGANIZATION

Social service finds its greatest expression in the work of the out-patient department, and it is in this department that the greatest advances have been made. But of equal importance in the social scheme of the institution's activity is the necessity for close co-ordination and inter-relationship between the social contact in the out-patient department and the social contact in the hospital proper. With a single worker and a correspondingly small volume of cases, this co-ordination is comparatively simple, but in a department where there are a large number of workers, definite thought must be given to co-ordination in setting up a scheme of organization.

DUTIES

It is believed that the head worker of the group should be in charge, not only of the out-patient activity, but of the in-patient as well. A contact once established in the out-patient department should be carried through to the hospital (if the patient is referred to the hospital). After the patient has been discharged from the hospital and comes back to the out-patient department he should be referred preferably to the individual originally working on his case. In any event, the case workers dealing with an individual patient should be reduced to a minimum. In some institutions this is accomplished by the assignment of individual social workers to definite medical divisions, in both the in- and out-patient departments. As a specific illustration, a cardiac case worker would interest herself in both the dispensary and hospital cardiac cases. Not all institutions subdivide their work to this degree. A number of hospitals assign some workers for a period of time to hospital work, and others are assigned

to out-patient work. Irrespective of the scheme of organization, the important thing is that, once a case has been worked up and a social picture developed to aid the clinician in his diagnosis and treatment, the value of that contact not be lost, and that the patient continue to be guided with the benefit of the increased understanding of his problem.

It is recognized that the out-patient department of a hospital cannot set up a social service organization of sufficient inclusiveness to cover all the work that may be referred to it, nor is it desirable that it do so, but there comes the necessity for intimate contact with other recognized and functioning social agencies in the community, including interchange of information and reports, so that the record in the social files may be as complete and in as great detail as is possible, and so that there may be no duplication of work or conflicting effort.

In the financial scheme of things the social service department will play an increasingly important rôle. Rates for both dispensary and hospital care can be put on a much more equitable basis when social findings on the case are given due consideration, and it is the socially trained individual, with a proper sense of balance, who can do this. It is not meant by this that the admitting officer of the hospital should necessarily be a social worker, but it is necessary that the social picture developed be used to the best advantage in building up and establishing a patient's ability to pay. Unquestionably a social worker who has been in contact with the family, and knows the family's condition intimately, is more capable of establishing a proper basis of compensation for hospital and medical service than is someone without this understanding.

A great deal is said about the collection of hospital accounts, and about the large percentage of uncollected accounts. A large ratio of these uncollected accounts is due

to improper assignment of rates at the time of admission. The budget of the average family in any community is made up to take care of ordinary demands only; few set aside funds for extraordinary occurrences. With the incidence of illness, there may be funds available for temporary payment of hospital bills, but if the case is at all drawn out or if the individual confined to the institution is the breadwinner of the family, it very often is necessary to have an adjustment and re-establishment of financial status. This is especially true of diseases of long duration such as orthopedic cases and tuberculosis. Families that are absolutely self-supporting and self-respecting, and that have no desire whatever to seek assistance, are compelled, by reason of long-continued financial drain, to adjust their budget very markedly to take care of these conditions. Therefore, in the establishment of rates and in the assignment of hospital charges, the social point of view should govern the financial: at all times, of course, keeping in mind the policy of admission.

ILLUSTRATION OF ACTIVITY

In order to present graphically the function of the social service department, an outline will be made of the handling of a certain family. For purposes of illustration, the case is a bit exaggerated in the scope of work to be done, but it illustrates the social ramifications presenting themselves to many health agencies.

From some source, either the health physician, visiting nurse, or by direct application to the clinic, the hospital out-patient department is put in touch with a child suffering from malnutrition. To diagnose and treat this patient successfully, it is necessary to know the conditions under which the child lives, so as a primary part of the successful treatment of the case a home visit is made by the social worker of the clinic. She finds that the family consists of a man,

his wife and seven children, of which this child is second to the youngest. The father's earning capacity is extremely limited; one reason for the lack of nourishment being the father's inability to provide funds for proper food.

As a direct result of this home visit the family welfare agency functioning in the community is put in contact with the case, and the efforts of the father are supplemented by this association to such a degree that the family is placed in a better environment and the absolute necessities of life are assured.

Incident to bringing this child to the clinic, it develops that the mother herself is not well, and after a sympathetic interview she is referred to the gynecological department, where it is discovered that by reason of improper obstetrical care she is in need of operative intervention. Arrangements are made for her admission to the hospital.

The mother's departure makes it necessary to find some individual to take care of the children remaining in the home; this may entail the placing of the comparatively new arrival in a home, through the agency of a child-placing bureau, if such is existent in the community, or, if not, through some other agency. The finding of a person to take care of the home in the absence of the mother occasions another reference to the family welfare agency. The mother is brought into the hospital. The social worker sees her during her hospital stay, and, just prior to her discharge from the acute hospital bed, arranges for her convalescent care under better conditions than can be obtained in her own home. This is brought about so that her hospital stay and its expense may not be dissipated by compelling her to return to an environment of work which might undo the good that may be derived from her hospital occupancy.

By reason of the intimate knowledge that this social worker has of the family, she finds that one of the other children

apparently is suffering from eye trouble, and that all of the children need definite dental correction. These children are referred to properly constituted agencies and such timely treatment will be reflected in the general economic condition of the family in years to come. It may also develop that the condition under which this family lives is bound to be productive of continuous sickness on the part of the entire family; intelligent effort will then be applied in this direction and a possible change made. There is then the phase of the mother again becoming pregnant and a consequent possibility that she will relapse into her former physical state unless she has intelligent prenatal and natal care, and after this natal care intelligent postnatal guidance for the mother and the new baby.

This is but a sketchy outline of what a social service department may do, and it is not unlike the problems that clinics meet daily. The transportation of individuals to other climates, the removal of a worker from one occupation to another less arduous, and similar social adjustments, all cannot but be an aid in successful medical treatment.

FOLLOW-UP

The follow-up of patients in an effort to get them to comply with instructions as to their care is highly important, and, if neglected, is an element of great waste. How many patients undo expensive hospital care by failure to wear the braces or supports prescribed? How many malnutrition cases, discharged in good condition, return in a short time almost in the same condition because they were not followed into their homes and definite courses of feeding prescribed? While the vast proportion of the social problem is one of inadequate finance, there also exist the problems of illiteracy and lack of understanding of what is necessary and what is good.

Social service unquestionably pays for itself in terms of increased community service. It is not a fad in any sense of the word; it is not a theory. It has demonstrated clearly its value to the clinician in diagnosis and treatment, and to the community in raising the composite health level.

CHAPTER VIII

PURCHASE AND ISSUANCE

ONE's first reaction to this grouping of institutional activity may be that it is not logical and that both the purchasing department and the storeroom should be definite entities. However, their work is so closely inter-related, and the potentiality for good emanating from their co-operation so great, as to demand a most intensive combined supervision by the administrative officer. In an organization without an assistant superintendent, this department should be very closely watched by the superintendent. However, in the event there is an assistant, to him should be delegated as a primary duty the department of purchase and issuance.

A great deal has been said about economy of purchase. There is no question that material savings can be effected by the application of sound principles of purchasing, but when thinking in terms of saving it must not be forgotten that while economy of purchase may save fifteen per cent, economy of issuance unquestionably will save many times this percentage. It also is apparent, when one considers the subject, that a knowledge of issuance and the demands of issuance are almost prerequisite to an accurate and correct purchase performance. It is therefore logical that the department of purchase and issuance be combined.

The problems of this phase of hospital operation are four-fold:

- A. Purchase
- B. Receiving and storage
- C. Record
- D. Issuance

PURCHASE

A knowledge of market conditions, or of general conditions affecting the markets, of seasonal products, of the theory and application of future purchase and a great many other points are essential to proper purchasing performance. When one talks with the high-class vender of hospital merchandise, one cannot help but be impressed with the nature of his comments. He feels that there is a tremendous lack of understanding of the most elemental business practices on the part of many of those entrusted with the purchase of hospital supplies. There is no question that that lack of understanding and consequent violation of basic business principles cannot but be reflected in the cost of the commodity. The statement is not exaggerated that there is comparatively no scientific purchasing done by a vast majority of hospitals in the country; that a large proportion of so-called purchasing is merely the placing of orders, based upon personal preference, expediency and demand of local conditions. Those who are operating hospitals must not lose sight of the fact that they are administering a public trust; that their obligation entails rendering to the community in which they live a maximum of service commensurate with the hospital's means. This trust approaches a degree far beyond that in an industrial organization, and if hospitals are to be faithful to it, they must put their purchases on a more businesslike basis.

The day of the hail-fellow-well-met traveling salesman is a thing of the past, and rightfully so. The securing of business on a personal basis will never be entirely eliminated, but this personal equation is being reduced to a minimum. Salesmen of the higher type today are service representatives of the corporation they represent. It is to be assumed that the man trained to sell textiles with a knowledge of his line (assuming, of course, that his house is a reputable one),

knows more about textiles than does the average hospital superintendent or hospital purchasing agent. There should be somebody in every organization who is not too busy to listen to salesmen. One can learn more from lending a receptive ear to their talk than in any other manner. It is not meant by this that one must buy, but certainly talking with a well-informed man adds to the fund of knowledge that every purchasing agent should have.

PLANNING OF PURCHASES

Purchasing should not be a "hit-and-miss proposition." It should be planned, and as a beginning the purchasing agent should at all times have immediately available the budgetary standing of each of the supply accounts of the institution. In a previous chapter there has been illustrated the method of keeping this information. Reference to this chapter will refresh the memory.

COMPETITION IN PURCHASES

Purchasing on no matter how small a scale should be on no other than a competitive basis. Price alone should never govern, but price plus quality plus service should be the criteria in placing an order. To put these competitive prices in proper form, it is most sincerely recommended that every institution, no matter how small, use a regular quotation slip, and that this quotation slip be filed as a part of the permanent record, with a copy of the written order placed, so that one not only will have a record for the present, but by reference to the past will be able to judge future transactions.

Purchase Record.—Where there is purchasing in volume, a purchase record is indicated. This purchase record should have noted on it every single purchase of every commodity made, in order that an accumulation of years of purchasing will furnish a record of performance that is invaluable. This

purchase record should show date, commodity with trade name, if any, quality and unit price. One can visualize the ease with which purchases are made if there is available a current record of previous purchases.

Anticipating Requirements.—One of the great difficulties in hospital purchasing is that, by reason of financial stringency, hospitals have felt compelled to buy by “a hand-to-mouth” method. There is no desire to advocate overstocking, but certainly on staple commodities such as gauze, adhesive, cotton goods, sheets, pillow cases, and similar items, the purchasing once or twice a year of sufficient quantity for such a period can be done on a more profitable basis than by buying by the dozen. When a small hospital submits an order for ten thousand yards of gauze or a large hospital one for one hundred thousand yards, it unquestionably gets a better price than it would for one-tenth the amount, and even if it is necessary to arrange for financial assistance it can well afford to pay interest to permit buying staples in quantity lots. Certainly if this practice is commendable in industry, it is commendable in hospitals. It is general knowledge that a large proportion of industrial organizations do business on borrowed capital. The borrowing of money without a sound financial scheme is dangerous in the extreme, but the borrowing of money with justification, such as has been herein advanced, is not only sound but will be productive of beneficial results.

Knowledge of Terms.—How many hospital buyers know whether the commodities they purchase are “F. O. B. Hospital,” “F. O. B. City,” or “F. O. B. Point of Manufacture”? How many take into consideration the cost of transportation and the incident potentiality for loss in transit which a purchase “F. O. B. Point of Manufacture” means? It should be a definite part of the purchasing procedure to establish proper terms and have them specifically written into the contract of purchase.

PAYMENT AND DISCOUNTING OF BILLS

Hospitals invariably are slow in payment of their bills, it is said, and in consequence manufacturing or sales agencies which deal exclusively, or in a large measure, with the hospital field are compelled to add an additional percentage of overhead by reason of the necessity for carrying accounts for an undue length of time. This point is best illustrated by the fact that there is a certain large city—one of the largest in the country—in which it is said not one single hospital pays its bills under three months' time. This information was volunteered by a representative of a leading hospital supply house, and there is no reason to doubt its accuracy. Such a situation merely reflects itself in the price hospitals pay for supplies, and because of this the service they are permitted to render with the money available is reduced in direct ratio to the increased price paid.

ESTABLISHMENT OF UNIFORM NEEDS

Another criticism which comes from salesmen is that hospitals do not know what they want; that there is no uniformity in their demands or standards. In picking up the catalogue of any manufacturer of hospital furniture, one notes the many different styles of bedside tables illustrated, none of which are different in essential points. Any one in possession of the slightest knowledge of manufacturing processes realizes that if all the hospitals in the country would establish two or three types of bedside tables as being pre-eminently fit, then all manufacturers of hospital furniture could produce these tables in quantity lots, and the prices would probably be fifty per cent lower than they are today. Prices obtained for practically all such items are out of proportion to their true worth. The average honest manufacturer of hospital furniture is not making an unduly large percentage of profit, but his prices are high because

he must manufacture this furniture practically in retail lots rather than in wholesale lots.

This same theory of purchasing applies to almost every commodity that enters into hospital operation. Instead of saying "Send me ten cases of asparagus" or "ten cases of peaches," why should the purchasing agent not say "Send me ten cases of asparagus conforming with the specifications of the National Cannery Association for select asparagus," or "Send me ten cases of extra standard peaches," and know what "extra standard" means? Instead of buying ten dozen sheets or one hundred bolts of gauze, why can't the hospital specify the thread count of the sheets and gauze? This may sound elementary, but it is surprising to note the degree to which the old inefficient practice prevails.

Specific illustration of any thought is always of more value than lengthy generalities, and therefore an example will be cited of what can be accomplished in the way of standardizing needs, provided individual hospitals will agree to these established standards. The Cleveland Hospital Council—Department of Purchase—has since its inception attempted, wherever possible, to establish uniform buying practices. To do this, it knew it must establish certain constants of requirements. Opportunely one Cleveland hospital was in need of advice in buying a large amount of equipment, and the purchasing committee of the council, therefore, turned its attention exclusively for a number of months to the development of a standard specification on metal furniture. The illustrated specification of a dressing cart but indicates one of the many pieces of furniture upon which a detailed specification was drawn.

In placing an order for a dressing cart, how much easier it would be to get competitive figures, how much easier it would be to describe what is wanted, how much easier to check up delivery, if each purchaser of dressing carts in the country had a specification similar to this. The author in

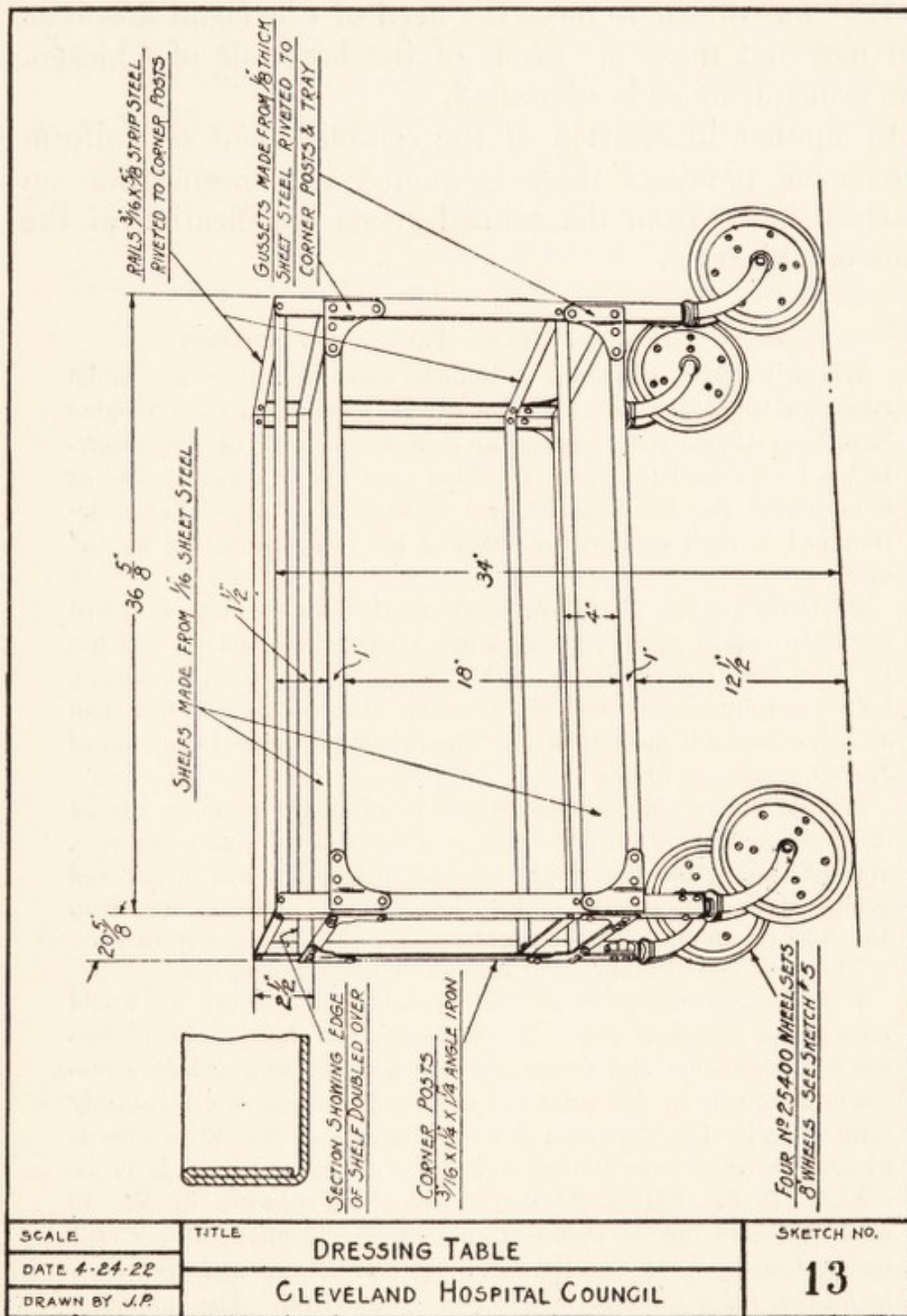


FIG. 18.—Dressing Carriage Specifications

no way advocates the adoption of this particular specification; it was drawn to meet the need of Cleveland hospitals and may not meet the needs of the hospitals of Chicago. The principle alone is advocated.

As another illustration of the establishment of uniform purchasing practices there is quoted the specification on peaches, taken from the canned goods specification of the same organization.

SPECIFICATIONS ON CANNED FRUIT AND VEGETABLES

Where weights are shown it is understood that they are to be minimum weights of the solid contents of the can and those weights have been determined upon by the U. S. Department of Agriculture. It has been found that properly filled cans will in general yield as a minimum the following drained weights, the weight being determined in each instance by draining for two minutes on an $\frac{1}{8}$ " mesh screen.

PEACHES.—No. 10 yellow cling peaches should be of choice grade, to consist of 40 per cent sugar syrup when packed; peaches to be of high color, ripe, yet not mushy, and free from blemishes, halves uniform in size and symmetrical. To contain not less than 30 halves and not more than 45. The minimum drained contents of No. 10 peaches is 64 oz.

No. $2\frac{1}{2}$ yellow cling peaches should be of choice grade, to consist of 40 per cent syrup when packed; peaches to be of high color, ripe, yet not mushy, and free from blemishes, halves uniform in size and symmetrical. To contain not less than 6 halves and not more than 15. The minimum drained contents of No. $2\frac{1}{2}$ peaches is 19 oz.

The same specifications hold true on yellow free peaches.

If a hospital desires to purchase peaches for pie use we would recommend Standard grade, 25 per cent syrup, fruit to be of reasonably good color and reasonably free from blemishes, halves reasonably uniform in size, color and degree of ripeness, and reasonably symmetrical. The minimum drained contents of No. 10 peaches is 64 oz. The minimum drained contents of No. $2\frac{1}{2}$ peaches is 19 oz.

SLICED PEACHES.—If you desire sliced peaches in No. 10 cans we would suggest that you purchase choice grade, 40 per cent syrup, fruit to be high color, ripe yet not mushy and free from blemishes, slices uniform in size and symmetrical. The minimum drained contents of No. 10 peaches is 64 oz. The minimum drained contents of No. $2\frac{1}{2}$ peaches is 19 oz.

These practices have been in operation in Cleveland to a greater or lesser degree for a period of five years. It is almost the unanimous opinion of Cleveland administrators that the establishment of these and comparable practices have simplified their purchasing problems materially, and from an economic point of view there is no doubt as to the savings that have been effected.

It is the application of the points above enumerated that differentiates between actual buying and the mechanical placing of orders. The degree to which each individual hospital applies the fundamental principles of purchasing to its own performance will be reflected in the price paid and the increased amount of service rendered for the money.

WRITTEN CONFIRMATION OF ORDER

Having gone through all of the details of securing data to support a purchase, one should never depend upon memory for these details. A written record embodying all of the pertinent terms of purchase should immediately be prepared, and be signed by the superintendent of the hospital, one copy going to the vender of the merchandise, one being retained in the desk of the individual responsible for the purchase, and a third copy being sent to the storeroom or receiving room of the institution. The purchasing agent upon receipt of this copy should immediately enter it on the budget sheet for that particular account as a liability to the account, and if a purchase record is kept he should also enter it on the purchase record.

CAREFUL ANALYSIS AND CHECK OF STOCK

Before leaving the subject of purchasing, another important point should be stressed. One must appreciate that the very nature of hospital operation produces an exceedingly high degree of obsolescence in commodities used. Progress demands changes and changes are apparently more

prevalent in medical practice and hospital operation than in almost any other line of endeavor, with the exception of strictly research work. Those responsible for purchasing, therefore, should very carefully watch to see that existing stocks are used either for the purpose intended or for some substituted purpose to which they can be applied, and to insure against the necessity for stocks of several articles, the character and usage of which are identical. To illustrate, there is no justification for a large purchase of canned peaches when there is an over-supply of canned pears in the storeroom. While it may be true that this over-supply of canned pears should not have been permitted, they do exist, and they should be used up before peaches or similar fruits are bought. Or if the buyer is to listen to the personal preferences and idiosyncrasies of the many individuals in an organization on pencils, pen points and similar items, the hospital will carry a variety of these commodities that will do justice to the stock of a retail store. These things are not indicated. And so it is with enamelware. If the hospital's purchasing policy does not definitely standardize the size and shape of the various basins it uses, in a short period of time it will find itself stocked with a conglomerate mass of such vessels which are of no value at all in a standardized scheme and which will undoubtedly result in dead stock on the shelves. A partial solution of this problem is referred to later on.

RECEIVING SLIP

An important problem in the storeroom operation is the problem of receiving. It is to be assumed that the average firm delivering goods to a hospital is honest, but the injection of the personal element from so many different sources requires a careful check of receivings to insure, not only that the total amount purchased has been received, but that the grade and quality ordered are actually delivered. Receiving should not be handled indiscriminately. If at all

possible, and it is possible in the majority of hospitals, receiving should be limited to one person, and his instructions should be very specific on the point that receivings shall be checked, not tomorrow or the next day, but immediately upon their receipt, the result of that check being incorporated in the receiving slip. This receiving slip should be made in duplicate, the original to be detached and transmitted to the accounting office as a part of the permanent record of the financial transaction, and a duplicate copy to be retained in the storeroom forming a basis for entering upon the inventory card or book, mentioned later.

GOODS RETURNED FOR CREDIT

Goods that are returned should be handled in a like manner. They should be listed in duplicate as are receivings, this listing to be in detail, the carbon copy being retained in the storeroom and the original being sent to the accounting office for follow-up and proper receipt of credit from the vender of the commodity. Courtesy dictates that goods should not be returned for credit until arrangements have been made with the vender for that return.

The trouble with many hospitals is that they rely entirely too much on memory and do not make a record of transactions that are consummated.

STORAGE

There was a certain hospital developed in a fair-sized community, and, after the plans had all been approved, it was discovered that no provisions had been made for kitchens. This, of course, is an exaggerated instance, but it is surprising the number of hospital plants that are planned and completed either with no facilities for storage or at best the most meagre facilities. The storeroom of a hospital is just as important in its economical operation as is the accounting office, the nursing unit, or the kitchens, and it should be of

sufficient size and so arranged as to permit adequate space for accessibly arranging all commodities that the hospital will use. An overcrowded storeroom not only cannot be kept orderly but cannot be operated efficiently. If commodities are not easily accessible, if they must be tucked away in dark corners, it follows that the percentage of dead stock is going to be increasingly great. Therefore, if a hospital is to operate its storeroom efficiently and economically, it must plan for a room of sufficient capacity to permit the proper handling of goods received. The old adage of "a place for everything and everything in its place" is certainly applicable here. All surgical supplies should be in proper receptacles in one part of the storeroom, all food supplies in another part, and supplies of various types should be separately and conveniently placed. Unless this is done the possibility of securing the best results is very remote.

INVENTORY

The supplies having been properly received and stored, the next step is the establishment and maintenance of a perpetual inventory. Hospital storerooms carry from as low as five hundred to as high as six thousand different items of stores. It is beyond the realm of human possibility to carry these items in one's mind. It is beyond the ability of any one individual or group of individuals to know the degree of issuance and the points to which issued, and all of these things are very essential in the operation of an institution. The form may be either a card or a sheet, but any inventory record should carry the following information: order number, date, firm name, commodity, quality or trade name, unit price, volume of commodity, amount of money and also a detail of points and amounts to which the commodity is disbursed.

Distribution of Expense.—Many institutions indulge in the practice of charging into the current month's expense the

full cost of all commodities bought during that particular month. As a specific illustration, they buy one hundred rolls of gauze and use only ten rolls of it in the month of January. January's expense of operation should not reflect the purchase of this hundred rolls but only the actual amount used during that month, the balance being carried in the inventory account.

In order to accomplish this, the inventory book should be arranged and divided upon the basis adopted for the financial operation of the institution. If this is done, and there is posted currently all receivings and disbursements, it is comparatively easy to draw off each month a book inventory of the totals only of each account, so that there may be a financial adjustment made. A formula that is easily understood and universally applicable is as follows: given any specific account, the inventory figure on the first day of that month plus the receivings in terms of money for that month, minus the inventory of the last day of that month, equals the expense, and is the item that should be charged into expense.

This adjustment in the financial accounts is accomplished by originating a journal entry each month. Book inventory drawn off with an adding machine is the basis for the journal entry.

Physical Inventory.—An actual physical inventory need not be taken more than twice a year, and, in a stock that is carefully watched, a physical inventory once a year is all that is indicated. It is surprising the small amount of difference that will pertain as between the actual physical inventory and the book inventory if it is kept up currently.

Analysis of Inventory.—It is suggested that the physical inventory be written out in detail. With the inventory cards or sheets alphabetically arranged by departments, the writing of this physical inventory is a comparatively simple matter, requiring the time of a stenographer in addition to the indi-

vidual having charge of the inventory book; or it can be done by one person. This list should contain the name of each commodity in the account, the amount of the commodity and the amount of money represented, with an approximate estimate of the consumption, i. e., whether there is ten days', thirty days', ninety days' or six months' supply on hand. A careful study of this list will develop an exceedingly interesting piece of information. Irrespective of how closely the stock is watched, it will be possible at each inventory period to weed out and put into use commodities that have become dead stock.

In most hospitals there are out-of-the-way storage places full of obsolete equipment, and many storerooms have too large a percentage of dead stock. Reasons for this large percentage of unproductive funds are: an improper control of purchases; the nature of the operation being one that produces a high degree of obsolescence; and failure to keep careful watch of stocks.

The comment may be made that this perpetual inventory is red tape, and that the cost of keeping it is out of all proportion to the need. Such a statement but reflects an improper understanding of what can be accomplished with such a system. If the system of issuance is properly organized and commodities received are properly segregated, the keeping of an inventory and the recording of disbursements in detail for a two hundred and fifty-bed hospital can be done by one person in two hours a day. It must be borne in mind, however, that these two hours are a daily obligation which cannot be performed once a week.

ISSUANCE

The phase of hospital operation which has a potentiality for greater saving than any other is the control of issuance. As a prerequisite to any system of issuance, irrespective of the size of the institution, there must be established an

inviolable rule that not a single item, regardless of its size or value, can be taken out of the storeroom without requisition signed by the superintendent or by his assistant, and in no instance signed by a department head. Department heads should know what the various workers in their department order, and therefore should see and, if desired, approve requisitions for supplies, but the final decision as to whether these supplies are to be issued and the authorized approval of that requisition should be in the hands of the administrative department alone.

Weekly Supply Day.—It is suggested that a weekly supply day system be instituted for all departments, with the possible exception of the dietary department. There is no necessity, except in cases of emergency, for interrupting not only the individual department's activity but the activity of the storeroom, by presenting requisitions for supplies at other than regular supply days, and certainly a weekly supply day is all that is indicated. This does not preclude the possibility of securing emergency supplies, but emergencies should be rather clearly outlined and the issuance and approval of emergency requisitions limited to a minimum.

Preparation of Requisitions.—It is comparatively easy for the various units to originate their requisitions in a uniform manner. To illustrate, the nursing department requisitions practically every type of commodity that is used. There is no reason why it cannot put all of its housekeeping supplies in one place on the requisition sheet, its medical and surgical supplies on another, and its stationery and office supplies on another. This permits the storeroom, when filling the requisitions, to pick up different items with a minimum of travel and also, in entering them upon the inventory, lessens the handling of cards or sheets.

Issuance on Exchange Basis.—One of the hardest factors to control is the issuance of replacement articles, i. e., the issuance of usable supplies, such as thermometers, rubber

goods, instruments, china, glassware, both dietary and surgical. The administration should know: (1) that the items requisitioned for replacement have been completely used and should be discarded, and, (2) that the requisition does not call for an amount in excess of what is needed on the unit. This is accomplished very easily by the installation of a system of issuing on exchange only. Requisition is issued, in red ink if desired, carrying items to be replaced. This requisition is accompanied to the storeroom by the items to be replaced. The system contemplates the inspection of these replacement articles by a representative of the administration and the official approval or rejection of the exchange. Such a system may be applied to all articles not of a consumable nature. It will unquestionably reduce the demands of the various units of the organization.

Record of Breakage.—It is believed that the moral effect alone of keeping in terms of money expended a separate record of the breakage of all the units of operation will curtail breakage.

ANALYSIS OF USE OF SUPPLIES

Constant effort should be made to acquaint the various members of the personnel with administrative problems, and one of the best known means of accomplishing this is the monthly preparation and distribution of a comparative statement of usage of supplies in the various units. When the charge nurse on Ward A learns that she used supplies amounting to \$72 more in February than she did in January, and when she learns that her breakage increased seventeen per cent, if she has the best interests of the institution at heart, she is going to make an effort to learn the reasons for these increases. Such an effort is bound to reflect itself in reduced usage the following month. This point illustrates the necessity for the department of record and analysis heretofore mentioned.

LAUNDRY REQUISITIONS

Laundry requisitions should be approved by the administrative office just as are supply requisitions, for there is the same definite item of cost involved.

Authorization for the placing of new linen into circulation should be given by one person only, and the indiscriminate ordering of new linen should not be permitted.

SUMMARY

To summarize the activities of the department, purchases should be placed on a sound scientific basis; receiving should be carried on in a businesslike manner; both receiving and issuance should be properly recorded; regular dates of issuance should be established and small quantities should be issued regularly and often; units of issuance should be established; various performances should be analyzed and the results of the analysis presented to interested personnel. The administration of this activity need not be on a niggardly basis, but should be with the idea at all times paramount that wastefulness is criminal and precludes the possibility of having available essential commodities.

As a last and exceedingly pertinent point, it must be accepted as fundamental that the consumer should never purchase or control. The dietitian or steward, being a consumer, should neither purchase nor control any commodity; nor should other department heads. This does not eliminate the possibility and the desirability of obtaining suggestions and advice from them in the guidance of purchases, but does reserve to the administration the prerogative that rightfully belongs to it.

CHAPTER IX

HOUSEKEEPING

"Call it germs, bacillus or dirt, the treatment is the same—that is, cleanliness."

WHILE the operation of the housekeeping department is not particularly affected by the general policies of the institution, there is a great necessity for close co-operation between it and the other departments. The interdependence of all departments of an institution cannot be emphasized too strongly. Team-play and a continuous inclination to co-operate mark the efficient hospital.

Hospital housekeeping offers certain complexities that do not pertain to hotel housekeeping. In addition to the scheduled work, there are always emergencies to be met, which definitely break into the plans of the entire day. A schedule of work is, of course, always necessary to any well-conducted department, but it is in the formulation of a plan to meet this schedule and also emergency needs that marks the efficiently organized department.

CONTROL OF PERSONNEL

There is an unusual difference of opinion as to the control of the ward cleaning maid, i.e., whether she should be under the direct supervision and guidance of the matron or under the head nurse on the nursing unit. Having accepted the principle of centralized control and departmental responsibility, one cannot but agree that the cleaning maid must be under the direct supervision and control of the matron and responsible to her for the carrying out of instructions. It is not meant by this that the head nurse may not ask a

cleaning maid to perform a service, but that the head nurse should not be permitted to change an outline of work planned by the matron and, in the event corrective procedures are indicated, that the head nurse should take the subject up with the matron rather than directly with the maid.

Supervision.—The problem of supervision in the house-keeping department varies materially from that of any other department in the institution. The decentralized character of the work creates a hardship, while at the same time the necessity for intensive supervision is equally as great as in other activities of the institution. Several schemes for providing this supervision have been tried. In addition to the matron and her assistants, some institutions have instituted a forelady or foreman of work. This individual has been given a position of authority in direction. Such a scheme contemplates the appointment, perhaps on a little higher scale of wage, of certain individuals located in strategic positions upon whom greater dependence can be placed than upon the rank and file. This system is especially efficient when one is dealing with foreign-speaking individuals and it is necessary to give them instruction in their own language.

This scheme further furnishes greater facility in the training of new personnel. New members of the organization may be put directly under this forelady and trained in their duties much more easily than if assigned to given units without previous instructions.

Irrespective of how supervision is accomplished, the important thing is that the matron or her representative must make continuous rounds, checking intimately each day the routine as well as the special work planned in each of the various units.

SCHEDULE OF WORK

Opportunities for overlooking certain procedures are very great. A definite schedule should be made for procedures

	1/1 - 1/15	1/15 - 1/31	2/1 - 2/15	2/15 - 2/28	3/1 - 3/15	3/15 - 3/31	4/1 - 4/15	4/15 - 4/30	5/1 - 5/15	5/15 - 5/31	6/1 - 6/15	6/15 - 6/30	7/1 - 7/15	7/15 - 7/31	8/1 - 8/15	8/15 - 8/31	9/1 - 9/15	9/15 - 9/30	10/1 - 10/15	10/15 - 10/31	11/1 - 11/15	11/15 - 11/31	12/1 - 12/15	12/15 - 12/31
Ward C																								
Diet Kitchen																								
Chart Room																								
Utility Room																								
Public Bath																								
Private Corridor																								
301																								
302																								
303																								
304 and Bath																								
305 and Bath																								
306																								
307																								
308																								
309																								
310																								
311																								
312																								
314																								
315																								
316																								
317 and Bath																								
Reception Room																								
319																								
320																								
321																								
322																								
323																								
324																								
325																								
328																								
330																								
332																								
Public Bath																								
Utility Room																								
Delivery and Labor Room																								
Nursery																								
North Corridor																								
South Corridor																								

FIG. 19.—With such a schedule established for various special procedures, and a systematic check of the chart, certainly the housekeeping performance can be controlled much easier.

not in the daily routine, such as window cleaning, floor waxing, high electric light fixture cleaning, etc. It is reasonable to assume that, if the matron's office contains a chart showing the previous day's performance, with a progressive record of what already has been done, the facility with which the program scheduled for the next day may be worked out is greater than if the matron must rely upon memory. An example of one of these schedules is shown.

TYPES OF CLEANING MATERIAL

Roughly speaking, cleaning materials may be classified into two groups:

- A. Those that clean by chemical action; and
- B. Those that clean by physical action.

In the first group are soaps and soap powders; in the second group are the so-called mechanical or abrasive cleaners. A wide variety exists in this latter group. These powders derive their abrasive element from different substances, such as marble dust, pumice, silox, tripoli and volcanic ash. The great trouble with the large proportion of these powders is that they cannot be held in suspension, and when placed in mop water, that saturated solution so essential in an efficient powder is not obtained. Powders having volcanic ash for an abrasive element have proved the most efficient. This ash is lacking in density and by its very nature crumbles under pressure, thus lending itself to maximum mechanical service.

In addition to the abrasive element in these cleaning powders, one must not forget that of equal importance is the cleaning element, and the best powder is one that will quickly dissolve or loosen the matter to be removed, without injuring in any way the surface upon which it is used.

Cleaning of Marble, Tile and Comparable Types of Floor.
—The belief is general that when marble is used in floors or

interior decoration it will, in course of time, grow old in appearance and lose its lustre. When such results become apparent those harboring this belief take them as a matter of course, and very little attention is paid to the cause. With the advent of tile, mosaics, terrazzo, and various other materials of a comparable nature, and with their universal use in the building field, the necessity for more definite and reliable knowledge as to their care and maintenance becomes manifest. Investigation has led to some interesting developments, and has proved conclusively that a major portion of the change in the appearance of these materials is due not to their actual deterioration in service but due to incorrect cleaning procedures.

The use of the group of cleaners under Class A, i.e., those depending for results on chemical action, not only does much to produce the discoloration mentioned above, but has a great tendency to make the surface slippery, owing to the fact that complete rinsing is almost an impossibility. It is believed that the cleaning of this type of floor can best be accomplished by the use of a substance of a very low soap content; one in which the cleaning element easily dissolves and loosens the objective dirt, and in which the abrasive matter gives sufficient resistance to remove the substance so loosened, without injury to the surface cleaned, i.e., a cleaning material of the second group.

Care of Linoleum.—Much has been written and much more has been said on the care of linoleum. In a consideration of the cleaning of linoleum, one must remember that it is dependent for its longevity upon the retention of a large proportion of the oil which is a constituent part of its make-up. The frequent use of cleaning materials of any type depletes these properties and eventually causes it to crack and craze. It is apparent, therefore, that harsh soaps and soap powders or abrasive materials of any kind should be used but little. Many manufacturers of linoleum are

advising the shellacing or waxing method, and where this is done, linoleum can be kept clean and in good condition by frequent washings with a light soap, such as is described in this chapter under the paragraph on jelly soap.

Where fixed dirt is prevalent, as in main corridors and offices, it may be necessary to use an abrasive cleaner once or twice a week, but a continuous use of these cleaners is definitely contra-indicated.

In general, entirely too much stress is laid on the use of a large amount of cleaning agent on floors. Cleaning agents of the right kind are essential and have a very important rôle in obtaining a properly cleansed floor, but far more important is a thorough rinsing with clean water following any procedure that may be instituted.

Cleaning of Painted Walls.—The proper washing of painted surfaces is a problem that is worthy of thought on the part of hospital administrators. Repainting at frequent intervals is not only expensive but is attended by so much annoyance and so much interruption of routine as to be objectionable in the extreme. Ordinary soaps and washing powders have time and time again proved themselves unfit for the purpose. Stronger compounds have attacked and removed the paint.

The washing of any painted surface requires some attention to detail and some care in not permitting the cleaning solution to remain on too long. A properly constructed abrasive cleaner, in which the soap content is but sparingly employed, and then only for lubricating purposes; a powder, in which the abrasive element will quickly and surely loosen all objectionable matter without injury to the paint and at the same time will apply a limited amount of mechanical friction to speed the removal of all loosened matter without scratching, is by all odds the ideal material to use.

Some persons advocate the use of so-called neutral or oil

soaps. The term neutral is a misnomer, as applied to soaps, for no soap which is neutral in its action will be efficient. Any soap of a sufficient coefficient to be of value, when placed in solution will have so low a coefficient that it will offer little aid in the cleaning of a wall. If, on the other hand, this cleaning coefficient is high enough to be of aid in the cleaning procedure, the potentiality for damage to the painted surface and the consequent chemical reaction are too great to warrant its continuous use. It is also true that any cleaning agent with a high soap content has a tendency to deposit an oily film on a painted surface unless it is very thoroughly rinsed; this film will collect new dirt quickly.

JELLY SOAP

It is difficult to buy a soap or soap powder that has a minimum of deleterious material at a cost which will permit its universal use in the institution. There is submitted a formula which will produce such a soap at a price less than it is sold for on the open market; the soap will answer practically every purpose, if the washing process is performed frequently and if the surface to be kept clean is of such a nature that only a very mild cleaning agent can be used. It is a product with three ingredients: a good basic soap as free from deleterious material as it is possible to buy; a modified soda that has been processed to remove excessive causticity and alkalinity; and water. The formula follows:

In a fifty-gallon tank, pour between twenty and thirty gallons of hot water and dissolve by boiling in this seventeen pounds of a high grade soap chip. Dissolve in a separate container seventeen pounds of modified soda until it is thoroughly in solution. Pour into the soap solution and stir; then allow it to cool.

Poured into cans for distribution in the institution, this mixture produces an exceedingly good soap for general cleaning purposes at a very low cost.

SUMMARIZATION

A summarization of the work of the department is not difficult or long, but is exceedingly important. Medical co-workers are gradually agreeing to the elimination of terminal disinfection in a majority of diseases. This in a large measure relieves the nursing department of a responsibility, but the responsibility is in turn thrown on the housekeeping department to insure compliance with the most rigid rules of sanitation. Another, and a very important, point is that a clean institution has a mental effect upon the visitor, the patient, and the personnel of the institution. One is bound to be more careful in one's work when the workshop is carefully kept. The matron must possess a type of mind that will recognize needs and be ever watchful and ever willing to remedy a situation that needs correction.

CHAPTER X

MECHANICAL

"A little neglect may breed mischief."

FOLLOWING the principle of departmentalization, it seems logical that the head of the mechanical department should hold a position comparable to the superintendent of buildings and grounds of a university, and that everything having to do with things mechanical be under his jurisdiction. If this division is sound, then the mechanical problem resolves itself into three fundamental divisions:

1. Heat, light and power
2. Shop repairs
3. House repairs

QUALIFICATIONS OF CHIEF ENGINEER

At this point it is highly essential to discuss the qualifications of the individual in charge of the department. A resourceful man working for the best interests of the institution and possessing a knowledge of the problems with which he is confronted can save many times his salary. The mechanical plant consumes a larger percentage of the total expense of a hospital than any department but the dietary, and the potentialities for waste, incident to lack of proper supervision as to commodities purchased and consumed and to performance of personnel, are exceedingly great.

The chief engineer should be a man qualified by an experience in keeping with the size of the plant, and should be paid a salary equivalent to the one he could get in an industrial plant of comparable size and scope. He also should be

provided with equipment that will compare with installations in similar activities. This equipment should include such instruments of precision and record as will insure a knowledge on the part of the administration and the chief engineer of departmental performance such as a routine knowledge of the percentage of ash produced per pound of coal, the uniformity of steam pressure, the amount of ice pulled and the electrical consumption in power plants. All of these things are absolutely essential to an efficient operation of the plant, and they should be available for the chief engineer's enlightenment; also they should pass over the desk of the superintendent for his inspection and information.

For instance, there is the item of air-tight boiler walls. How many superintendents know that according to boiler manufacturers this one thing more than any other is the source of waste in coal? The proper inspection of baffle walls to insure their good condition is something that an efficient chief engineer will make without suggestion; the untrained man will not do it. The saving in fuel resulting from such an inspection will go far towards paying a chief engineer's salary. A knowledge of how to clean boiler tubes properly, to inspect boiler heads, to oil or supervise oiling of machinery, to detect minor difficulties that will very quickly be major ones, sounds elementary, but training is required to do these things properly.

The story goes that a manufacturing plant in Chicago had a gasoline engine which would not work and sent for an expert. He looked at the engine for a minute or two, then asked for a hammer. He tapped three times on a certain place and said, "Turn on the engine, it will work." Later, the firm was sent a bill for Five Hundred Dollars. The comptroller of the organization, being the usual comptroller, returned the statement and asked him to itemize it. The statement came back itemized as follows:

For tapping engine.....	\$1.00
For knowing where to tap.....	499.00

The story is apropos of the point at question.

The purchase of coal, as coal, is a wasteful process, but buying coal, with a knowledge of its thermal value and a check on deliveries to see that proper thermal value is being given, is a function of the chief engineer. Only a competent chief engineer will do this.

MAINTENANCE AND REPAIR

In the mechanical department there is a constant need for major repairs and the manufacture of apparatus. Dependent entirely upon the size of the institution is the necessity for the establishment of various types of shops, such as for plumbing and carpentry. The chief engineer unquestionably should supervise these shops and have the responsibility of planning the work of the personnel. If he is properly trained and has a proper point of view, the saving effected will be favorably reflected in the operating cost of the institution.

House repairs divide themselves into two types: major replacement and repairs and routine nature. The administration should definitely control the first class of work, and no work of this type should be done without the approval of the superintendent or his assistant. This gives the superintendent a knowledge of the demands on the mechanical department, and takes away from the chief engineer the necessity for refusing to do a certain piece of work, with a consequent possibility of friction. All major repair and replacement work should be by definite requisition, just as in replacement or repair to be purchased outside.

Repair Book.—Routine repairs are such as the fixing of leaking faucets, replacement of light bulbs, and fixing of light cords. The setting up of a mechanism of requisitions for these repairs creates a burden that is unnecessary and waste-

ful in the extreme. Such a system does not permit of repairs being done with the expediency indicated. If there is a leaking faucet discovered on Ward A at nine o'clock in the morning—the requisition period being eight-thirty each morning—such a requisition will not go to the office until eight-thirty the second morning; it will not be approved and transmitted to the repair man before noon, with the result that the faucet will not be repaired until three or four o'clock in the afternoon of the second day.

In lieu of requisitions a ward repair book to be kept on the charge nurse's desk is suggested. The repair man in his daily rounds will go to this book, note the things to be done, do them, keep a record of his time, and report the time to the chief engineer.

NECESSITY FOR EFFICIENCY IN PLANNING

The close inter-relationship between efficient planning and economy of operation, as they pertain particularly to this department, makes it advisable that a few points on construction be presented for consideration. It is beyond the province of this volume to offer a solution to these questions; they are presented, however, so that those entrusted with building operations may realize the importance of mature deliberation in planning and in the selection of various equipment.

- A. Shall high or low pressure boilers be installed? Shall the generation of steam for cooking, sterilizing and laundry purposes be centralized or decentralized?
- B. Shall the institution manufacture its own light and power?
- C. Shall the hospital purchase ice or manufacture it?
- D. Shall the original installation be of the best possible grade of pipe and plumbing fixtures?
- E. Shall pipes be located in the wall, in pipe stacks, or exposed?

- F. Shall there be mechanical ventilation, and if so, how much?
- G. What type of insulation shall be used?
- H. What thought shall be given to availability of motors, etc., for repair?

These questions are not the only important ones, but each one of them vitally affects the problem of efficient and economical operation, with a resultant difficult or easy performance of the mechanical department.

Efficient maintenance is the only way of conserving a property, and by efficient maintenance is meant continuous watching and prompt repair of minor matters. Thousands of dollars are wasted in every activity of life daily for lack of conservation in maintenance. Many a piece of equipment is discarded when a minor repair would have conserved its usefulness. All of these things are minor in themselves, but they present an aggregate that is large, and the only solution is the application of great thought in planning the original plant and careful watchfulness of that plant in its operation.

CHAPTER XI

LAUNDRY

IN a consideration of the laundry problems of the hospital, one must realize that there are certain fundamental differences between the handling of an institutional laundry and a commercial laundry.

A commercial laundry is operated primarily for profit and incidentally to turn out well-finished textiles at a minimum laundry cost. The relative wear and tear of procedures in the commercial laundry are of no particular or primary interest to the company operating the laundry. There is, however, the necessity for a higher finish on the textiles sent out, in order that there may be the competitive appeal.

In the institutional laundry ease of procedure upon the linens is a matter of primary importance and is the one thing which should be considered above all others in a determination of policy. Further, an institutional laundry must have large volume production, permitting the passing of large loads of textiles through the laundry quickly.

In planning one must always keep in mind the four-fold problem of institutional operation:

- A. Washing
- B. Finishing
- C. Mending
- D. Distribution.

DEPARTMENT HEAD

It is important to have a competent individual in charge of the laundry. Many hospitals consider their laundry problem

a secondary one. Cheap supervision and labor may reflect a small cost in the actual operation, but the length of service of textiles and the waste produced by improper operation will more than offset the additional cost necessary to secure competent supervision.

WASHING

The physical equipment of a laundry plant has a great deal to do with the type of work turned out. Washing and extracting facilities should be developed materially in excess of the expected washing demand of the institution; otherwise, when there is a pressure of work or when facilities are not adequate, there is a tendency, in order that processes may be speeded up, to shorten individual operations or to build up washing formulæ to a point at which they are harmful to textiles.

There should be sufficient washing facilities to permit a segregation of different types of textiles; this is an exceedingly important point and one that will reflect in the operating cost.

In the extracting process the hospital should not lose sight of the fact that it is cheaper to extract water from cloth than it is to dry it out. In other words, textiles extracted to the limit of the ability of the extractor can be laundered more cheaply than if dependence is placed upon the mangle and press machine to dry out the excessive moisture.

Formulæ.—Of equal importance to the equipment in an efficient operation is the establishment of proper formulæ and sufficient administrative supervision to know that these formulæ are adhered to. No hard-and-fast formula can be established for laundry procedures, applicable to conditions in all parts of the country. The chemical properties of the water have a great deal to do with the results of any formula. It is suggested that each hospital in the beginning secure the

services of a competent laundry engineer to develop formulæ for them, and then see to it that they are carried out.

The belief is common that soap is a universal washing agent for the laundering of clothes and that an alkali or a soda is added merely as a water softener, or "break," as it is termed. Modern laundry practices have completely exploded this theory. As a matter of fact, the presence of suds or soap has nothing whatever to do with the actual washing process. It is the alkali content of any formula that does the actual cleansing of the textiles. Suds or soap merely serve as a lubricant and a float for that part of the objectionable material which is not neutralized or dissolved by the alkali.

It would, therefore, seem logical that the buying of soap for its alkali content is rather an expensive procedure, and that it would be far more economical to buy alkali as such and soap as such, each to perform the work for which they are intended—the alkali for cleansing and the soap for lubricating.

What, then, should be expected of these two constituent parts of any formula?

The alkali should be as free as possible from harmful material. It should open the fibre of the textile sufficiently to permit the cleaning process to be introduced with the least possible wear and tear. It should act as a neutralizer of all acid deposits, both from the body and from other sources. It should emulsify all oils and greases and facilitate their quick removal. It should do all these without injury to the fabric or to the color; furthermore, it should be of such a character as to rinse freely, causing not only its own release from the textile, but also the release of materials that have been loosened and the soap that has been used with it.

Considerable discussion has been entered into as to the relative economy of caustic soda and modified sodas in laundry operation. There is no question that caustic soda, properly used, will furnish the desired alkali in a washing

formula, but commercial caustic soda has an exceedingly high percentage of deleterious matter, and unless great care is used in the preparation of the formula and in its injection into the wash-wheel, the results are bound to be harmful to the clothes. On the other hand, a modified soda that has been processed to remove most of its harmful elements, and has been chemically compounded to present a maximum of correct content, would seem to offer a better material with which to build up the formula. It is true that these modified sodas are more expensive, if one considers only the actual cost of the washing procedure, but when consideration is given to the potentiality for danger that the use of improper materials hold it would seem that the additional expense for the higher-priced commodity is indicated.

The purchase of a low soap content commodity is wasteful in the extreme. It is believed, without question, that one can afford to pay the premium for the higher grades of soap that are on the market.

FINISHING

The high grade glossy finish prevalent in commercial linen is not essential in hospital textiles. What the institutional laundry wants is a fast feed mangle that will, in one running, finish the flat work so that it will be neat in appearance.

Cost of Hand Finishing.—The most expensive procedure in a laundry is hand finishing. The author has in mind a laundry with seventeen hand workers. By redesigning the nurses' uniform (the elimination of gathers in the skirt) it was possible to iron most of the uniform on the press machine, depending upon the hand finishers for not to exceed ten per cent of the total work. By this change, and by the installation of two press machines, the number of hand workers was reduced to six. In designing hospital garments it is always well to keep this point in mind.

MENDING

At some point in laundry operation there must be established a system of inspection for torn linen. This point is sometimes established where the textiles come from the extractors and are shaken out for finishing. In other plants, it is accomplished behind the mangle and finishing presses, or in the linen room. The latter point does not seem the logical one, by reason of the fact that a thorough inspection requires unfolding and refolding of linen, but the best point to establish an inspection for torn linen is behind the mangle and at the finishing presses. The problem of mending hospital linen has always been a very difficult one. Its successful consummation can only be accomplished by intensive supervision to see that such linen does not get back into circulation and at the same time to permit the replacement of torn linen so that nursing units will not suffer shortage.

RECORD OF WORK

The results of the laundry operation should be checked just the same as the results of any of the other operations of the institution. Whether it is by counting the number of pieces, or by weighing various types of textiles laundered, is of little moment, but the hospital must know the volume of work done and must compute cost of that work on a comparable basis. The results will be interesting.

MARKING OF LINEN

All hospital linen should be marked at the time it is put in service. Some institutions mark with a drop stitch machine; others mark by hand or with a stamping machine. The first two methods do not seem to be highly efficient, but any marking system is satisfactory provided it is permanent. The important things to be included in the marking are the name of the hospital, the date the textile is put into circulation,

and, if the system demands it, the name of the unit of operation to which the linen belongs.

Care should be taken to establish a uniform point of marking on all pieces of a given type so that in the folding process this marking at all times will be on the outside of the linen.

DISTRIBUTION

There are several systems of distribution of hospital linen. Without a knowledge of the individual plant, the relative amount of linen in circulation and the training of the workers, it is impossible to say which is the better for any one hospital but several methods are herein incorporated.

Scheme I.—This scheme contemplates the establishment of a very definite standard for each unit of operation, and a marking of the linen to designate these units. It contemplates that there be a count of the linen on the ward, and another coming back from the laundry to insure a complete return. The disadvantages are that, in an institution with ten nursing units, it is necessary to sort the sheets into ten different divisions, thereby putting an excessive amount of linen in use to meet maximum demands. There is also the complication of confusing linen of one ward with linen of another ward.

Scheme II.—By this plan the linen for the institution as a whole is marked, counted on the ward, placed in laundry bags and sent to the laundry, requisitions issued by a charge nurse, and these requisitions filled in the laundry for the following day's demand. The disadvantages of this scheme are that certain nursing units are more careless than others in the use of their linen; that there is no established responsibility for this carelessness and unless the requisitions and supply cabinets on the wards are carefully watched, the possibility of an excessive amount of linen on one ward and the shortage of linen on another is very great.

Scheme III.—This method calls for an exchange of clean linen for soiled linen and necessitates counting on the ward. A laundry slip is made out, sent to the laundry and filled with clean linen. The difficulties of this plan are the labor of counting, with the almost invariable variance of the count between the ward and the laundry, and the consequent constant discussion of the accuracy of the count. Nor does it permit of the flexibility of linen distribution that other plans do.

Scheme IV.—A fourth system contemplates a count out of the ward, into the laundry, out of the laundry, into the linen room, out of the linen room, and back into the ward. This labor of counting is hardly justified. Unfortunately no two counts absolutely tally, and the conservation of the linen is debatable. When the nursing unit needs additional linen to take care of a patient, irrespective of what the count has been, it is incumbent upon somebody to furnish it, and if it is not furnished one way it will be another.

Scheme V.—Another method contemplates the establishment of a central linen room, with no reserve stocks of linen on the wards. In a semi-acute institution there is no question that this is the best scheme of the group, but it is debatable if this theory can be carried out in an acute hospital, unless there is to be constant travel between the various units and the central linen room.

Irrespective of the system of checking, it is a source of constant annoyance, and that this annoyance may be reduced to a minimum there should be continuous analysis of ward usage and demand and a careful administrative supervision of usage in order that the stock of linen in circulation may be kept to the lowest point consistent with good service. An excessive supply of linen in service unfortunately stimulates its over-use, and it is this unnecessary use that only the administrative office can control. Nor can this be done by having the nursing office approve laundry requisitions.

RECLAMATION OF GAUZE

A committee of the American Hospital Association in the year 1922 developed some interesting figures on the reclamation of gauze. Most startling was the small percentage of hospitals that reclaim gauze. When one analyzes results, there is no debating the economy of gauze reclamation. The comment has been made that reclaimed gauze is not safe; that the possibility of contamination is great. Without equivocation this statement is unsound. The reclamation of gauze presupposes that the institution will set up a very definite formula covering: (a) collection, (b) washing, (c) sterilizing, (d) sorting and packing, and (e) secondary sterilizing, and that there will be just as much care taken in carrying out these formulæ successfully as in any other vital procedure. Assuming that the ward gauze has been properly washed, there is just as great danger in using new gauze unsterilized as there is in using reclaimed gauze. Almost every institution today checks the sterilization in one or two ways, either by record gauges, by chemical controls, or both. If these controls are used, one need have no fear whatever in the use of reclaimed gauze.

Formulæ for gauze reclamation, as submitted by the committee, follow.

FIG. 24.—RECOMMENDATION FOR RECLAMATION OF GAUZE MADE BY A COMMITTEE OF THE AMERICAN HOSPITAL ASSOCIATION, OF WHICH DR. A. B. DENNISON WAS CHAIRMAN

METHOD OF RECLAMATION

The primary consideration in the method of reclaiming gauze must be that two basic requirements must be met; viz., sterility of the dressings and a certain degree of absorbency. At the same time one must keep in mind that once these requisites are secured, the method must result in as little wear as possible and that it must not pile up a large labor cost that would counterbalance any saving effected by gauze renovation. That these factors are all possible of attainment is proved by the experience of hospitals washing gauze. At the same time, there is no rigid uniformity of laundry methods. This leads us to conclude that the method of

reclamation is nothing occult at all but merely the application of ordinary principles of sterilization and laundry.

The gauze is collected on the wards in heavy net bags hung in garbage cans. The bags are heavy enough to stand washing and the gauze is not removed from the bags until it reaches the gauze room. In the washer the gauze is subjected to these steps:

1. Rinsed in several changes of cold water (4-5 changes) until the water is clear.
2. Four inches of warm water—2 pounds of soda and 2 pounds of soap (powdered). Run thirty minutes.
3. Rinse through two changes of hot water.
4. Four inches of water—3 pounds of soda and 2 pounds of soap. Boiled hard for twenty minutes.
5. Rinse through three changes of boiling water.
6. Rinse through two changes of cold water.
7. Extract for fifteen minutes.

The figures given in (2) and (4) are for a medium-sized washer.

Repeated bacterial tests have shown that the gauze is absolutely sterile at this point, but some hospitals subject the gauze to another sterilization in the large bedding and mattress sterilizer. This is hardly necessary, however, and most hospitals omit this step. The gauze is then sent to the gauze room, slightly damp, where it is pulled out flat.

The average time required for all these processes is about an hour and a half total in the laundry. This does not mean, however, that the entire attention of a laundry man is required for this period of time. The cost of a day's supply of material used for a load of gauze is about fifty or sixty cents.

Our records show several slight variations from the typical routine. For example, one hospital soaks the gauze over night in cold water, feeling that it makes the preliminary rinsing easier. Again, some hospitals use considerable bleach in washing the gauze. This certainly results in whiter gauze but is of no other advantage. There are also slight variations in the length of time allowed for the various steps but these are of no great importance. The typical method given above secures all the essential characteristics and can be used as the basis for working out one's own method.

CHAPTER XII

OUT-PATIENT DEPARTMENT

It is in the out-patient department connected with the general hospital or operating independently that one sees the ultimate expression of community service. Patients applying to dispensaries are more responsive to treatment than those seeking hospital care, and it is in these dispensaries that the greatest preventive work can be done. Dispensaries, as a rule, are divided into three groups:

- A. General dispensaries for diagnosis and treatment;
- B. Special dispensaries;
- C. Preventive dispensaries.

The first group is by far the more numerous. There is no intention to discuss the relative merits of the professional performance of these groups, but the underlying principles in the establishment and operation of a dispensary will be outlined.

ORGANIZATION

The out-patient department, of whatever type, has four major divisions:

- A. Administrative;
- B. Medical;
- C. Social service;
- D. Nursing.

There are, of course, the complemental services of housekeeping, mechanics, etc., as exist in the hospital proper, but their

problem is comparatively small as compared with the four major groups.

ADMINISTRATIVE

Out-patient practice is growing with such rapidity that its proper administration is becoming an increasingly great problem. Out-patient departments were originally developed largely for the purpose of providing patients with ambulatory care and also as a feeder to the hospital, but their function is rapidly changing and today they are being thought of as definite units in the communal health scheme. Too, they offer a wealth of teaching material available in no other way. Administrative officers of such departments must bear in mind these primary functions:

1. The care of ambulant sick.
2. The elimination of unnecessary hospitalization of patients, and careful selection of patients for available hospital beds.
3. A medium of educational and preventive propaganda to patients.
4. Teaching facilities for the medical and nursing profession.

The administrative scheme divides itself into: (1) a scheme of control, (2) a scheme of admission, and (3) a scheme of function.

Control.—The individual in charge of the department in a large number of institutions is an assistant superintendent of the hospital, reporting directly to the superintendent in regard to his particular activity. Insofar as the operation of the out-patient department is concerned, he should hold exactly the same position and exercise the same function as does the superintendent to the entire hospital. There is no intention to go into details. Fundamental principles expounded in other chapters of this book are equally applicable to the operation of the out-patient department.

Admission.—The admitting scheme should provide for the prompt handling of a large volume of patients in restricted hours of operation. There must be a ready reference to the history of previous admissions, both medical and social. Quick transportation of individuals to special clinics are essential; the mechanism of this function depends entirely upon the physical development of the department, the size of the activity, and numerous other factors.

Function.—In setting up the machinery of the out-patient department, first of all it must be determined whether the clinic shall be an indigent one only; whether it shall take care of a part-pay clientele; whether it shall take care of consultation work from other agencies and from private physicians; whether it shall be restricted in its activity to special clinics.

Having determined the policy of operation, there must also be developed an intimate contact with all services in order to insure an administration fully in keeping with the ideals of the institution. Certainly it would seem that the financial arrangement at all times should be subservient to the medical needs of the individual presenting himself, and fully in keeping with the social picture presented by the patient. If this ideal cannot be realized by reason of the policy of the individual clinic, every effort should be made to secure proper reference for the patient.

MEDICAL DEPARTMENT

The scheme of organization of the medical department should be developed along lines almost identical with the scheme of organization of the hospital proper, with the possibility of greater division intra-service than is current in any but the largest general hospitals. There is in existence a sharp line of demarcation between the hospital staff and the out-patient staff, a condition much to be deplored. It is not possible, except in a few instances, to have dual staff appointments, nor is it believed desirable that members of

a staff carry an active service in the hospital proper and the out-patient department coincidentally, by reason of demands beyond the ability of the individual to meet. There should, however, be the closest possible relation between the two staffs, to the end that the patient will be a recipient of medical practice developed through a consistent, continuous policy, and so that there may be no lapse of service in changing from one form of treatment to another, such as is bound to occur if there is not the closest tie-up between the in- and out-patient service.

Junior members of the hospital staff should be on the out-patient staff. Appointments on the hospital staff should only be after a term of service in the out-patient department, in which the ability and inclination of the individual have been demonstrated. Senior members of the hospital staff either should carry active appointments on the out-patient staff or should intimately supervise work of the out-patient physicians.

There unquestionably should be created for the out-patient department the same type of medical council as is existent in the hospital. Its functioning is requisite to the right type of out-patient department service.

The departmentalization of various allied medical activities is equally, if not more, important than in the hospital proper. The opportunity for subdivision of the various major groups is much greater by reason of the larger volume of work. To illustrate this point, the hospital medical service will, except in very large institutions, have no subdivisions. In the out-patient department this one branch of medical practice may be divided into quite a number of different types of clinics, such as metabolism, gastro-intestinal, cardiac, etc.

The out-patient department should have as intimate a contact with the laboratory as does the hospital. Every facility indicated for the proper diagnosis and treatment of

disease must be available for the out-patient department, if it is to render the type of medical service that is so highly important in the proper care of the community's health.

SOCIAL SERVICE DEPARTMENT

The out-patient department, in its present-day development, typifies its acceptance of the newer work of hospital operation: the attempt to meet in a large way the social needs of the community, recognizing that disease is the basis of a large proportion of the social problem. In applying this principle in an out-patient department, the development of the social phase is of exceeding importance, and must go hand in hand with the development of the medical service, if the department is to make itself felt in the community. Each community should develop facilities to meet its own social needs. It would be presumptuous in a volume of this type to outline specifically the channels along which social service departments should be developed.

Attempting to apply social service to all patients who present themselves to a clinic for treatment is creating a volume of work far beyond the ability of the individual clinic to carry; nor is such a scheme of development indicated, but the intensive development of social service with special types of cases and the gradual enlargement of this service to other types, as the demand is indicated, seems the logical way of developing a new out-patient department. As the department becomes established, and its medical service recognizes the need for supplemental social service, there can be developed through the injection of additional workers a larger piece of social work.

Social service departments cannot be legislated into being. There is a great deal of adverse comment on the degree of patronage, so-called, that our clinics are offering. To originate a social service department requires a basic understand-

ing of the work, a desire to help, a willingness to submerge individuality in the interest of a greater result.

NURSING DEPARTMENT

There exists, of course, the necessity for nursing assistance in the performance of the out-patient department, and this service can be furnished either by student nurses, by graduate nurses, or supplemented, as in a large number of institutions, by hospital helpers. A further phase that is becoming increasingly accepted by nurse educators is the opportunity of training student nurses in public health work that is offered by out-patient departments. Such a scheme presupposes the installation of a head nurse in charge of the out-patient department, with special training in this phase of institutional activity, such as is possessed by a head nurse in any other nursing unit of the institution. It presupposes further the allocation of student nurses to the department through a planned course, in order that the period allowed them in the dispensary may be of maximum benefit in obtaining a composite picture of public health work. As a corollary, student nurses in this field should receive practical experience either with the social workers of the hospital, or, better still, in conjunction with the Visiting Nurse Association of the community, if this is possible.

SUMMARIZATION

In setting up a scheme of out-patient operation the motivation should be the rendering of the highest possible type of medical service to ambulant patients, and its operation should be dominated by this idea. A large volume of patients is not nearly so important as are small numbers of patients intensively cared for and returned to the community in the shortest possible time as productive, economic units.

A properly functioning out-patient department is a definite factor in the education of that vast group of any community

which is needful of the greatest guidance in the care of the body. Application of specific therapy is valuable, but it ceases to accomplish the desired result if, with the administration of that treatment is not included, either by direct comment or by example, an idea of prevention of the recurrence of the condition. The development of special clinics may be motivated by the desire of the clinician to render a more efficient service in individual cases, but analysis of the performance of these clinics demonstrates clearly that their true value lies in the fact that they permit more intensive educational work with patients in the care of their present condition and in the elimination of recurrence.

Venereal disease clinics, prenatal clinics, cardiac clinics, malnutrition clinics, all have a very definite medical reason for their existence, but they have an equally important social reason therefor, and dispensaries must, in addition to the medical performance, be geared up to an educational performance.

CHAPTER XIII

THE SMALL HOSPITAL—THE APPLICATION OF THESE IDEALS AND PRINCIPLES TO ITS OPERATION

IN a consideration of the operation of hospitals there will come into the minds of many a feeling that all the idealism and all the mechanism outlined in this volume is fine for the larger hospital, but is not applicable in any sense of the word to small hospital development. Such a belief is quite contrary to fact, and in this chapter attempt will be made to apply the fundamental principles outlined in previous chapters to the operation of the small hospital.

Bear in mind, please, that a majority of the sick of the country are handled in hospitals of under fifty beds. Therefore, any scheme of operation that is not applicable to the small hospital will not be of maximum benefit to the field. Further, the problems of the small hospital are more complicated than they are in the larger hospital owing to financial stringency or the inability, by reason of the small volume of work, to secure proper personnel for various activities, and the consequent necessity for combination of duties. Notwithstanding all of these conditions, it is a fundamental truth that the principles of operation and the underlying thought of existence are identical in the hospital of ten beds and in the hospital of five hundred beds. It is merely the application of details that is different. The necessity for a greater adaptability in the small hospital but makes its problem the more difficult.

The small hospital must accept the first and second primary functions of a hospital absolutely, and to a lesser degree

the third function. In other words, the small hospital, by reason of its greater intimacy of application, has a greater potentiality for real constructive work in "the care of the sick" and "the education in the care of the sick." The clientele of the small hospital is entitled to the same vision of service and the same facilities for diagnosis and treatment of disease that the patient in the large hospital enjoys.

The same principles of organization must govern. There is the same necessity for centralized control and for acceptance of responsibility on the part of the board of managers or owner. The community that the small hospital serves is entitled to that same belief that the organization is doing everything within its power to get the highest possible type of diagnostic and therapeutic service possible to obtain. The small hospital must recognize its community obligation to the same degree that the large hospital does. Its operation must not be dominated by any group or sect. Its vision of service must be community-wide. Therefore, the selection of its board of trustees, if it has one, must be with that same wide vision of community service in mind; or, if it has an owner, that individual must have that broad concept of all-inclusive medical performance that is so necessary to efficient practice.

The selection of the superintendent of a small hospital presents difficulties that are trying of solution, but highly important in the development of the institution. She must have as broad, or even broader, understanding of all of the problems of hospital administration than the head of a larger institution. She must of necessity get into details more closely, but at the same time—and this is a point that must be emphasized—she must not be so tied down by detail as to miss the opportunity of placing the hospital and its broad field of service before the community, to the end that the community may know of its work and accept it. The superintendent of any hospital, if he functions correctly, must be

a super-salesman of service, and in the small hospital is found the ultimate expression of this phase of the superintendent's work.

The superintendent may be pre-eminently qualified as a housekeeper, as a dietitian, as a nurse, but if she cannot have her hospital accepted in fact by the community, if her individuality is not sufficiently virile to iron out petty difficulties incident to administration, she will have failed in the most important function of the position. In order to accomplish these things, it is important that there be established that same authority as is in larger institutions. An individual cannot function properly without authority. The superintendent of the small hospital must be of a caliber sufficiently broad to seek and accept advice; for an attempt to administer to the needs of the small hospital without the closest contact with the medical staff, without a recognition of its problems and an inclination to meet these problems, cannot but be detrimental to the functioning of the hospital.

The necessity for the departmentalization of a small hospital and the allocation of responsibility for performance is equally as great, though not quite to the same extent necessary, as in the larger hospital. There may, and should be, a combination of duties. To illustrate, in the smaller hospital some member of the attending staff will function in the position of chief of the department of X-ray and chief of the department of laboratories. The pharmaceutical work will be taken care of either by a technician in the laboratory or by some member of the nursing personnel qualified to do that work. There probably will be no need for a social service department, or, if there is, that socially trained individual will be placed in charge of the office and probably will combine social service, admitting and financial performance. The nursing activity is always of sufficient size to demand that the head of the department has no other than nursing department duties. The mechanical department may not be

established as an individual department, but certainly this does not mean that the individual in charge of the hospital should not be qualified efficiently to administer that phase of a hospital's work. The dietary and the housekeeping department may be combined, although there is some question as to desirability. The laundry unquestionably will be under the direct supervision of the superintendent, as also the purchase and issuance department.

In the mechanics of administrative control, there is the same necessity for intelligent, sympathetic understanding on the part of the superintendent that is existent in the large hospital. There is the same necessity for close personal supervision of the activity. There is the same necessity for accurate detailed recording of performance, both vital and financial, for the proper analysis of these records after the service has been consummated. To make this point specific, there is the same need for efficient accounting in a hospital of fifty beds that there is in an industry of comparable size, and the hospital of fifty beds is as justified in installing a proper chart of accounts and the proper personnel for handling these accounts and including the cost thereof in its charge for service, as is the manufacturer of any commodity purchased on the open market in including the cost of his accounting department in the price of the commodity he is selling. It is submitted, without fear of successful contradiction, that no hospital, no matter how small, can be intelligently administered unless facts, which can be developed only by such a system of recording, are known to the administration and are used intelligently by the administration.

That there is the same necessity for a proper budget for hospital performance is unquestionable.

By reason of the necessity for combination of duties, it is rather hard to staff the front office so that patients being admitted, persons coming to visit patients, and telephone

inquiries will be handled properly, but first impressions are generally lasting impressions, and if the hospital is to inject itself so thoroughly into the community as to make its existence essential to the public welfare, it must attempt by every means in its power to implant itself in the affections of the people.

In its medical staff, the small hospital has many difficulties to meet. First of all, there is not the degree of specialization in the staffs of the small hospitals that is found in larger institutions, and, therefore, the possibility of departmental organization is not as great. Further, by reason of the large territory that many small hospital staffs cover and their inability to plan their work with a degree of accuracy, the opportunities of intimate intercourse in the way of meetings is not so great. This, however, does not mean that the ideals underlying the organization of the staff should not dominate, and that within reason the same principles of control of medical performance and the same inclination to improve medical performance, and the same mechanism for this control and this improvement should not be instituted in the small hospital as pertains in the large. There is no reason why the staff members of the small hospital should not subscribe to an analysis of their patients' histories and of their work, and there is no reason to believe that such an analysis would not be as productive of good to the small staff as to the large one. All in all, it must not be forgotten that the theory of all of these procedures in the hospital is predicated on rendering a higher grade of service. In the end analysis, some of these theories may be unsound, and if they are they will fall in the course of time by their own weight, but in the main they are sound, and if they are sound in one place they will be in another. It is, therefore, the function of the administration to inspire group consciousness on the part of the staff, to stimulate the scientific phase of their work and to be insistent as to the type of work.

One hears the comment frequently that nurses from the small hospital have a greater grasp of the true function of their profession than those from the larger institutions. Be that as it may, the facts are that the small hospital permits of a more intimate moulding of these young women's lives and of an easier injection of the ideals of the profession into their thought. Because of the large number of these smaller schools, and the correspondingly large volume of nurses graduated, there comes the realization of the necessity for the highest ideals of teaching and of nursing care in the small hospital as an absolute prerequisite to efficient service.

The dietary department, the department of special therapies, and the department of social service in the small hospital should be developed in direct proportion to the demands of the community. There are not many social problems in the small hospital, but when they present themselves they should be met with that same understanding necessary in the large hospital. The dietary problem has not the volume of the large hospital, but the person in charge of the department should be just as qualified to prepare a diet in keeping with a formula prescribed by a doctor as should the dietitians in large hospitals.

In the department of purchase and issuance there is the same proportionate saving to be effected in applying scientific purchase methods and intelligent supervision of issuance as in the large hospital, and the mechanism for the department of purchase and issuance outlined in the previous chapter is just as essential for the small hospital.

All in all, the difference in the operation of a large and a small hospital is simply a difference of degree. It is hard to realize how the small hospital can meet some of the demands that are made with the small volume of work, but with the recognition that hospital service of the best kind is not necessarily the cheapest service, that complete service is more expensive than incomplete service, and that intelligent ad-

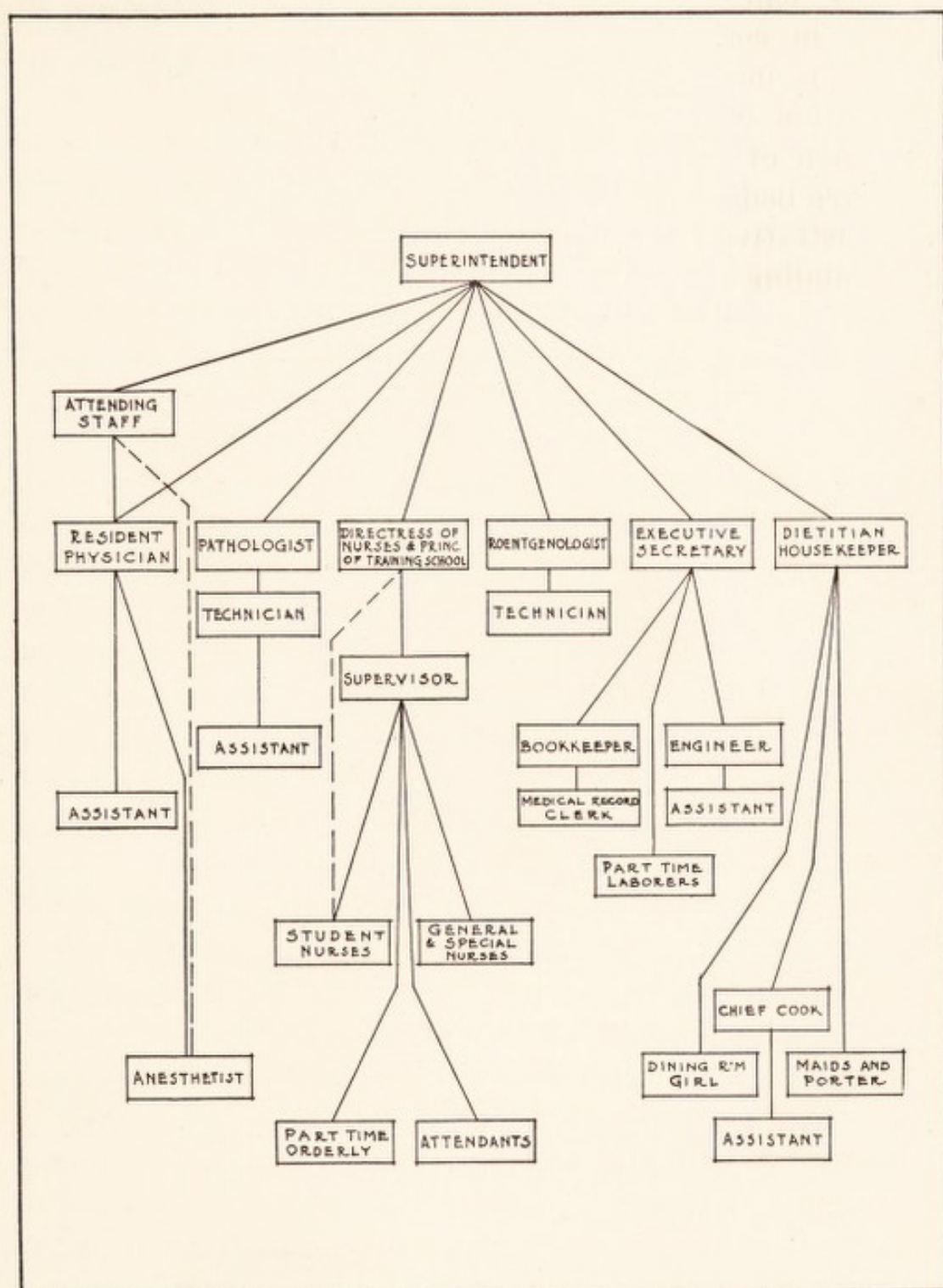


FIG. 20.—Small Hospital Organization Chart

ministration brings the maximum return on the dollar spent, the character of service of small hospitals, just as of large hospitals, can be increased out of all proportion to the increase in cost.

There is incorporated as a part of this text a chart of organization of a small hospital. This chart is a graphic illustration of an organization functioning in a hospital of thirty-five beds in a community of under 20,000 inhabitants. It is illustrative of what can be accomplished with a proper understanding of the underlying principles of administrative control.

CHAPTER XIV

GRAPHIC ILLUSTRATION OF PROCEDURES OF OPERATION

IN previous chapters of this volume there have been outlined certain ideals and basic principles governing the operation of a hospital. Incidental reference has been made to specific procedures as illustrative of those ideals or principles, but no definite procedures have been established. It is felt that the volume would not be complete without illustrating at least the basic administrative procedures of an institution, and there is accordingly, in the following pages, an outline of the admission, care and discharge of a patient; the billing and collection of a patient's account; the requisition, purchase, receipt and disbursement of a commodity; and the accounting practice of an institution concerning both patients' accounts and income and expense disbursement. There also are illustrated certain forms which are desirable in an analysis of the institution's performance.

The illustrations are divided into six general groupings as follows:

I. ADMISSION AND DISCHARGE OF PATIENTS

In this division there will be illustrated in consecutive order all of the essential steps in the handling of the patient from an administrative point of view. These, of course, are not all of the forms or steps that are necessary, but it is believed that these procedures are a basic skeleton of any proper administrative scheme of admission and discharge. In this illustration no division is made as between private and service cases, it being felt that with the establishment of

the principle of admission each individual institution may modify or amplify the procedure to suit its individual needs.

Patient's Reference Card, illustrated in figure No. 21 (reduced from 3½" x 6" size), is devised for a dual purpose, as a definite reference from the attending physician to the hospital, and as the bearer of specific information concerning basic rules and regulations of the institution to the pa-

<p style="text-align: center;">RATES Effective April 10th, 1921</p> <p style="text-align: center;">PRIVATE ROOMS</p> <p>Private Rooms, \$ 7.50 per day Corner Rooms, without bath, 10.00 per day Corner Rooms with bath, 12.00 per day Suites, Two Rooms, with bath, 18.00 per day All Rooms have Bell Telephone connections. Special Nurses' Board, (if any), \$2.00 per day</p> <p style="text-align: center;">OPERATING ROOM</p> <p>Charge per schedule from \$5.00—\$25.00 Delivery Room \$20.00</p> <p>The charge for operating and delivery room service includes the use of the room proper, all materials used in the operation and the anesthetic. An operation performed in the patient's room will be charged as per schedule of charges for operating room.</p> <p style="text-align: center;">SEMI-PRIVATE ROOMS</p> <p>Rooms in Private Pavilion, \$ 5.00 per day with two beds in room, Rooms in Private Pavilion, with four beds in room, 4.00 per day Beds in Private Wards, 4.00 per day Special Nurse's Board (if any), \$2.00 per day.</p> <p style="text-align: center;">OPERATING ROOM</p> <p>Charge per schedule from \$3.50—\$20.00 Delivery Room \$15.00</p> <p style="text-align: center;">RADIOGRAPHS</p> <p>Charge for Radiographs as per schedule, dependent upon character of work done. Radiographs will not be made nor any special treatments given, except upon written instructions of attending Physician or Surgeon.</p>	<p>(Name of Hospital) (Address of Hospital) (Telephone No.)</p> <p>PLEASE ADMIT <u>John Edwards</u> ADDRESS <u>14620 Euclid Hts.</u> AND ASSIGN TO MY SERVICE. PATIENT WILL ARRIVE <u>Wednesday 4 P. M.</u> AND WILL WANT ACCOMMODATIONS AS FOLLOWS: <u>Private Room</u></p> <p>SPECIAL ORDER _____</p> <p><u>Routine preparation</u> <u>appendectomy</u> <u>Brown.</u> M. D.</p> <p>Form No. CC-1-B.</p>
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FIG. 21A.—Reference Card.

tient. The procedure of its use is that each physician who refers patients to the hospital will be furnished a supply, and asked to use them in such reference. It is suggested in the larger hospitals where there is more than one service, such as a private and semi-private service, more than one of these forms might be devised, so that there will not be the grounds for complaint on the part of private patients being charged a higher rate than semi-private.

The patient, having presented the reference card to the hospital, is immediately placed in charge of the admitting office, and pertinent information concerning him is entered on the *Patients' Register* illustrated. (In figure No. 22, reduced from 9½" x 12" size.)

It is this record that is the basis of all institutional performance and, therefore, its accuracy must be unquestioned.

<p style="text-align: center;">INFORMATION for PATIENTS</p> <p>IT IS THE DESIRE OF THIS INSTITUTION TO FURNISH the best of service, and constructive criticism of any character is earnestly solicited. It is by means of such information that the service can be improved. Any suggestions should be made directly to the director.</p> <p>VISITING HOURS FOR PATIENTS IN PRIVATE ACCOMMODATIONS are 9 A. M. to 9 P. M. excepting in the Maternity Department where visiting extends to 8 P. M. Visiting hours for the Semi-Private Accommodations are 1:30 to 2:30 P. M. daily and 7:00 to 8:00 on Monday, Wednesday, Friday and Sunday.</p> <p>SOLELY FOR THE GOOD OF THE PATIENT, RELATIVES and friends may not remain in the Institution over night except in cases of extreme emergency and then only by permission of the director.</p> <p>IF DESIRED, MEALS WILL BE FURNISHED TO RELATIVES or friends of patients in private rooms provided sufficient notice is given to the nurse in charge of the service. Charges for this service are: For morning or evening meal, \$1.00 and for the noon meal \$1.25.</p> <p>RELATIVES OR FRIENDS OF PATIENTS UNDER NO conditions will be permitted in the Operating Room during time of operation.</p>	<p>THE HOSPITAL MAINTAINS a DEPOSITORY FOR ALL valuables, and patients upon admission should turn over to the Admitting Officer all moneys and valuables for deposit. The Hospital will not be responsible for any valuables unless they are sent to the office.</p> <p>PAYMENT FOR ROOM IS REQUIRED TWO WEEKS IN advance. If the patient leaves before expiration of period paid for, a pro rata refund will be made. The Hospital reserves the right to move to the open ward a patient occupying a private or semi-private room, who fails to pay his or her bill for hospital service within 72 hours after presentation thereof.</p> <p>CHARGE FOR ROOM INCLUDES REGULAR MENU DIETS, attendance of the Resident Staff, general nursing service, diagnostic laboratory service, and all ordinary medicines and surgical dressings.</p> <p>EXTRA CHARGE WILL BE MADE FOR USE OF OPERATING Room Service, Delivery Room Service, Board of Special Nurses, if any, Radiographs, X-Ray Treatments, Medicines not in formulary, Wines, Mineral Waters, Oxygen, Sera, Vaccines and extras not included in the regular menu diets.</p> <p>ARRANGEMENT FOR THE ATTENDANCE OF PHYSICIAN or SURGEON for patients in the private Pavilion must be made before the patient is admitted. Patients for the open ward will be admitted as service cases only.</p> <p>THE TRAINING SCHOOL OFFICE OF THE HOSPITAL is willing to secure for the Patient special nurses if specified by attending physician. Any arrangement made with a special nurse shall be as between the patient and the nurse.</p>
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FIG. 21B.—Reference Card.

The form shown is a very compact one. The procedure of assigning numbers to patients can be varied to suit the needs of the individual institution; there may be continuous serial numbers, or a new series may be started each year or each month. The latter two practices, however, have a tendency to confuse the numbering. The number assigned to the patient becomes the medium of identification throughout his stay in the institution.

The patients' register should remain intact in the admitting room, so there is the necessity of transferring the information contained on this register to the accounting department and information center, and there is, therefore, devised the *Twenty-four-hour Report of Admissions* as illustrated. (Figure No. 23, reduced from 8½" x 11" size.)

PATIENTS									
NO.	ADMITTING			NAME	ADDRESS				
	NO.	DATE	HOUR						
1	16803	1/6/28	10 ⁴⁵	Friedman	Neuro	1786 Courtney			
2	4	1/6	11 ²⁰ A	Parks	Baby	19543 Cedar			
3	5	1/6	4 ²⁵ P	Baldwin	Killie	1856 East 117 th			
4	6	1/7	8 ²⁰ A	Anderson	Bentah	1492 St. Clair			
5	7	1/7	9 ¹⁰ A	Williams	John	12648 Superior			
6	8	1/7	2 ³⁰ P	Jones	Sarah	2642 Orange Ave			
7	9	1/7	4 ¹⁰ P	Edwards	John	14620 Euclid Hotel Bldg.			
8	16810	1/8	5 ⁴⁵ P	Anderson	Baby	1492 St. Clair			

REGISTER											
OCCUPATION	RELIG.	NATL.	SEX	CIVIL STATE	ATTENDING PHYSICIAN	PROVISIONAL DIAGNOSIS	PHYSICIAN OF WARD	DISCHARGE			
								NO.	DATE	HOUR	
Superintendent	J	Am	M	S	Smith	Hernia					1
					Jones	New-born	C				2
Housewife	Pro	Am	F	M	Andrews	Thyroid					3
Housewife	Pro	Am	F	M	Brucial	Labor	C				4
Schoolboy	Pro	Am	M	S	Emergency	Suspect Fract. Skull	B				5
Infant	Pro	Am	F	S	Pediatrics	Malnutrition	B				6
Executive	Pro	Am	M	M	Brown	Chronic Appendicitis	A				7
Stillborn						Stillborn	C	16-10-28	1:17	5 ⁴⁵ P	8

FIG. 22.—The two sheets illustrated above are used in a post binder, one line continuing across the two sheets and containing a record of one patient.

This report is devised for two purposes: (1) to act as a check on the individual ward census, referred to in another paragraph of this chapter, and at the same time to be the basis of originating the individual patient's bill; and (2) to originate the vital statistics of the institution, in the way of individual case card, number of patients admitted, etc. In a smaller institution a single copy is all that is necessary, this

Information Card									
Admitting No. 16809									
Date and Time of Admission 4:10 P.M.		Date and Time of Discharge 1-7-23							
Remarks:									
Send Bill to Self	Address			Rate 7.50					
Diagnosis on Admission Chronic Appendicitis				Condition on Admission Fair					
Employer American Flour Co.	Address Bank Bldg.			Telephone No. Main 1776					
Referred by Brown Self	Service of Foreman?		Religion Prot.		Occupation Executive				
Age 49	Male <input checked="" type="checkbox"/>	Female <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Black <input type="checkbox"/>	Valuables Deposited Yes <input checked="" type="checkbox"/>	Clothes Deposited Yes <input checked="" type="checkbox"/>			
How Brought Auto	Where From Home		Res. City for 8 years		Place of Birth (State or County) Mass.				
Nearest Relative or Friend and Telephone No. Mrs. John Edwards (wife)									
Address 14620 Euclid		Heights Bldg.		Telephone No. Heights 1923		Ward or Room No. A 104			
Surname Edwards		First Name John							
Form No. C-1-B									

FIG. 24.

copy being transmitted from the accounting office to the record room, and so on. In large hospitals it should be originated in duplicate or triplicate, dependent entirely upon the physical layout and physical division of the various facilities.

The twenty-four-hour report is transferred from the admitting room to other activities of the institution but once a day, i. e., at the end of the census period for the day (if the census period is from twelve midnight to eleven-fifty-nine p. m., the time this report should be terminated is at twelve o'clock midnight). It is necessary, however, immediately upon the admission of a patient to transmit to the information center complete data on the patient, and for this purpose the *Patients' Information Card*, as illustrated, is devised. (Figure No. 24 reduced from 4" x 6" size.)

It is necessary that this card be correctly filled in after the patient has been admitted and transmitted at once to the information desk. It will be noted that this card carries on it practically all information essential to intelligent answering of a question that might be asked regarding the patient's admission, other than his medical condition. All of this information is essential during the time the patient is in the institution, and certainly is essential as a part of the permanent records. This particular card has been devised for a visible index file. If the standard box file is to be used the order of the card may be reversed, i.e., the name of the patient and the admitting number placed on the filing line at the top of the card.

A great many institutions require an *Admission Permit*. There has been devised a form that will serve this purpose and at the same time may be used as a history folder on the ward. This form is illustrated herein. (Figure No. 25 reduced from 9" x 12" size.)

This form is a stout manila folder approximately nine by twelve inches which lends itself very nicely to the use of a history folder on the ward, and afterwards as a holder for

Discharge No. _____		Admission No. <u>16809</u>	
Discharge Date _____		Admission Date <u>1-7-23</u>	
Name <u>Edwards, John</u> <small>PRINT IN FULL</small>		Age <u>49</u>	Color <u>W</u> Sex <u>M</u>
Address <u>14620 Euclid Heights Blvd</u>		<u>NY</u>	S. W. D. Religion <u>Prot.</u>
Occupation <u>Executive - American Blower Co.</u>			
Referred by Dr. <u>Brown</u>		Address <u>Johnson Bldg.</u>	
Where Born <u>Mass.</u>		Date of Birth <u>2/11/1874</u>	
Condition of Patient on Admission <u>Fair</u>			
		Ward & Room No. <u>A-104</u>	
Service or Physician <u>Brown</u>		Interne <u>Carroll</u>	
		<u>H. A. M.</u> Admitting Officer	
Provisional Diagnosis <u>Chronic Appendicitis</u>			
Final Diagnosis _____			
Operation _____			
Condition on Discharge _____			
Remarks _____			
_____		_____	
Interne		Resident	
_____		_____	
_____		Staff	

FORM NO. C.I.D.

FIG. 25.—Admission Permit.

the discharged history. Attention is called to the lower third of this form, providing for the entering of discharge medical information. This can readily be used as a summary sheet.

The handling of patients' valuables is a procedure that has

Name *Edwards, John* ... Ward *A. 104* ... Date *1-7-23* ...

Delivered to *Admitting Room*

Money \$ *42.⁸⁶* ... Other Valuables *buff. books. Watch. Stick pin - pen.*

.....

.....

The above is a complete list of my valuables.

Witness *N. A. M.* (Signed) *John Edwards*

Form No. C-1-E

Received of

Money \$

Other Valuables

.....

Witness

FIG. 26.—Valuable Envelope.

a potentiality for severe complaint, if not given the proper attention. There is illustrated a *Patient's Valuable Envelope* which would seem to answer the purpose. (Figure No. 26 reduced from 7½" x 5" size.)

Attention is called to spaces for listing of valuables, for securing the acquiescence of the patient as to the accuracy of this list and for the receipt from the patient for the return of his valuables on the reverse side of the envelope. This valuable record should be filed with the patient's history.

It would seem that *Permission for Operation* in the case of minors should be secured in the admitting room, and the form is illustrated herein. (Figure No. 27 reduced from 5½" x 8½" size.)

PERMISSION FOR OPERATION	
PERMISSION IS HEREBY GRANTED TO THE AUTHORITIES OF <u>(Name of Hospital)</u>	
FOR SUCH PROCEDURES AS MAY BE NECESSARY IN THE CASE OF <u>Chris Williams</u>	
<u>Operation may be necessary account suspected</u> <small>(GIVE DETAIL OF PROCEDURE)</small> <u>fracture of skull</u>	
WITNESS <u>M. A. Mathews</u>	SIGNED <u>Mrs. James Williams</u>
	RELATIONSHIP <u>Mother</u>
○ _____	
FORM NO. C-19.	

FIG. 27.

It is suggested that each hospital secure the opinion of its counsel before adopting this form as final.

These are the essential admitting procedures. Certain institutions will, of course, want to amplify some of them. The patient's clothes list, which although it has not been illustrated, is very essential. There are the issuing of *passes for visitors* and various other steps too numerous to mention. All are but refinements of this system.

Now as to discharge, equally as important as the twenty-

TWENTY FOUR HOUR REPORT OF DISCHARGES

January 7, 1923.

TWENTY FOUR HOUR REPORT OF DISCHARGES							
HOSPITAL -NO.	TIME DISCHARGED	WARD OR ROOM	N A M E		ADDRESS	DISCHARGED TO	REMARKS
15896	940a	A	Gilson	Andrew	15785 Union	Home	January 7-1923.
16801	958a	B	Smith	T J	1565 E	Home	
15728	315 P	C	Merrick	Lena	1494 E 115 th	Home	
15736	315 P	C	Merrick	Baby	" "	Home	
16745	405 P	A	Boilder	John H	10647 Coleman	Parents	
16794	412 P	A	Howitt	Harry	Bread, O	Parents	Death
16810	545 P	C	Anderson	Baby	1492 St. Clair		release signed stillborn

FIG. 28.

four-hour report of admissions is the *Twenty-four-hour Report of Discharges* illustrated herein. (Figure No. 28 reduced from 8½" x 11" size.)

The transmission of this report should be identical with the transmission of the twenty-four-hour report of admissions, and should be originated for the same period of time and in the same number of copies as the former report. It is suggested that in an institution of comparatively small

DISCHARGE	
Name	<i>Andrew Gilson</i>
Room or Ward	<i>A</i>
Date of Departure	<i>1-7-23</i>
Time	<i>9⁴⁰ A</i>
Discharged by Doctor	<i>Adams</i>
Chart No.	
<p>(This form must be presented to cashier at the time patient leaves hospital)</p> <p>Form No. C-2-B</p>	

FIG. 29.—Discharge Permit.

number of admissions and discharges the report of discharges may be incorporated on the reverse side of the form reporting admissions.

It is assumed that all hospitals will establish as a fundamental principle that no patient shall be discharged without his history having been completed and the attending physician's O. K. having been obtained. Some systems call for the sending of a discharge notice to the administrative office in advance of the actual discharge of the patient. Such a form is illustrated. (Figure No. 29 reduced from 3" x 5" size.)

At the time of discharge the patient's history folder should be returned to the administrative office; the information card removed from the active record of patients in the institution and placed in the inactive record; the patient's ledger card or sheet taken from the active accounts and terminated if possible by its payment, or if not, placed in the inactive accounts.

In some instances patients insist upon being discharged from the hospital, contrary to the advice of the physician. It has been ruled by some courts that unless the institution

Jan 7th 1923.

This is to certify that in the case of Harry Howitt

Admission No. 16794 Ward A Bed Adams Physician

has advised as follows: corrective operation to straighten limb.

This advice will not be followed upon order of undersigned who assumes full responsibility therefor.

Signed Mrs. James Howitt

Witness Dr. Carroll

○ _____

Form No. C-3-A

FIG. 30.—Release Form.

specifically enters a protest against this removal they are responsible for any ill effects that may ensue. Irrespective of whether this ruling could be sustained or not, the institution should protect itself against any possible controversy, and to that end this *Release Form* has been devised and is illustrated herein. (Figure No. 30 reduced from 8½" x 5½" size.)

In the event of death, the institution in most instances is

Report of Death

Name John H. Boulder No. 16745
 Age 38 Address 10642 Coleman
 Ward A Service Surgery
 Date 1-7-23 Hour 4:05 P.M.

Cause of Death

Primary Pneumonia
 Duration 5 days
 Secondary Fracture of ribs
 Duration _____

What test confirmed diagnosis? _____

Did an operation precede death? No Date _____

_____ Carroll H. O.

Is a Post-Mortem desired? yes

If so, by whom? Wife

Were friends or relatives present at the time of death?

Yes

THIS REPORT IS TO BE MADE OUT PROMPTLY AND LEFT IN THE
 SUPERINTENDENT'S OFFICE

Form No. C-2-D

FIG. 31.

dealing with a grief-stricken relative, unsettled in mind, and it is highly important that all transactions consummated at that time shall be a definite matter of record so that there may be no misunderstanding later, and in order that there may be a specific record of all procedures. The form suggested is the *Report of Death*, illustrated herein. (Figure No. 31 reduced from 5" x 8" size.)

It is also suggested that there be devised a standard form of *Order on Undertakers* for disposition of the body. This form also is illustrated. It is recommended that the form be made out in duplicate in order that a permanent copy may be retained by the hospital. (Figure No. 32 reduced from 3" x 8½" size.)

DELIVER TO <i>Wheeler</i>	DATE <i>1-7-23</i>	Hour <i>6 P.M.</i>
BODY OF <i>John H. Boulder</i>		
Body received in good order.	(Signed) <i>Jean M. Boulder</i>	
<i>Wheeler</i>		
Form No. C-54	CHESTNUT	

FIG. 32.—Order on Undertaker.

The securing of autopsies is a matter that requires much of finesse in the handling, and it is believed that a *Permit for Autopsy* is an essential form in the hospital's equipment. Such a form is illustrated. (Figure No. 33 reduced from 5½" x 8½" size.)

II. PROFESSIONAL RECORDS

Permit for Admission has been illustrated in a previous paragraph. This form also serves as a *history folder* and *summary sheet*.

It is not the purpose of this volume to debate the relative

efficiency or inefficiency of certain history forms. Probably there is more literature on the subject of professional records in an institution than on any other one phase of the institutional activity, and reference is made to the work of the American Hospital Association's committee on forms and records; to the work of the American College of Surgeons on professional forms; and to the work of various individual hospitals in perfecting systems of professional recording pre-

1. Jean M. Boulder bearing the relation of Wife
 to John H. Boulder a deceased patient, do hereby
 authorize the authorities of this Hospital to perform an examination of the body of said
 patient, with the object of ascertaining the correct cause of death. The undertaker is
 authorized to call for the remains 6 P. M. a. p. m.
Jan 7th 1923.
 WITNESS:
C. J. Carroll (Signed) Jean M. Boulder
Luttrell
 ○
 Form No. C-27

FIG. 33.—Autopsy Permit.

eminently fitted to meet the need. The only plea entered here is for simplicity of records and of record forms. A large number of forms are wasteful in the extreme, and in most instances are unnecessary. (Figure No. 34 reduced from 8" x 11" size.)

The history *first sheet* illustrated carries at its head pertinent information concerning the patient and can be filled out in the admitting room or by the nursing department on the ward. A history *second sheet* with no printing thereon will probably be ample for all subsequent pages of that

patient's history. There is, of course, a need for special blanks for some of the special services. As a rule, however, special printed blanks have a tendency to produce mediocre work, and do not stimulate the initiative in history taking which is so essential.

Merely as a suggestion of a scheme of history taking, but with no thought as to its completeness or adaptability for

Name	<i>John Edwards</i>		Admission No.	<i>16809</i>	Room	<i>a</i>
Address	<i>14620 Euclid Heights Blvd</i>		Social Condition	<i>M.</i>	Age	<i>49</i>
Occupation	<i>Executive</i>		Industrial Hazard	<i>None</i>		
Race			Nationality	<i>Am.</i>		
Admitted: Hour	<i>4²⁵P</i>	Day	<i>1-7</i>	19 <i>23</i>	Discharged: Hour	Day <i>19</i>
Interne	<i>Carroll</i>		Visiting Physician	<i>Brown</i>		
Former Admissions						
Date	History No.	Diagnosis				
<i>1</i>		<i>None</i>				
<i>2</i>						
<i>3</i>						
		Diagnosis				
Provisional	<i>Chronic Appendicitis</i>		Dr.	<i>Brown</i>		
Final			Dr.			
Case History						

FIG. 34.—Medical History Sheet.

every institution, there is incorporated herein an outline *Form for the Taking of Histories*. The *modus operandi* of securing a history is one that should be worked out by each institution, in collaboration with its staff. The essential thing is to obtain a detailed record of the patient's condition and of the diagnostic and therapeutic procedures instituted during his stay in the institution.

METHOD OF PREPARING MEDICAL HISTORIES AND RECORDS

Admission notes shall be consistently brief and shall include nature of complaint, duration of present illness and outstanding physical findings.

ent illness:

When making admission notes, determine whether the patient has one or more previous histories in this institution, either **Hospital or Out-Patient Department**, and if so, request a brief of such history or histories. Hospital briefs will be furnished by the Record Room, and Out-Patient Department histories will be furnished by the Out-Patient Department.

Hospital briefs will include the following information from previous histories, but they do not relieve the interne of his obligation to make a complete examination and record of findings in the pres-

ADMISSIONS

Admission notes on all patients shall be written at the earliest possible moment after the patient is admitted, and shall be placed in history folder.

Complaint	Pathological report
Family history, positive findings	Gastric analysis
Personal history, positive findings	X-ray
Present illness condensed	Operation
Abnormalities	Last consultation
Routine laboratory findings	Discharge and condition
Special laboratory findings	

EXAMINATIONS

At the first opportunity on the date of the patient's admission a complete history shall be taken and physical examination made in all cases by the interne to whom the case is assigned, except that this is not required in cases expected to remain in the hospital less than twenty-four hours.

All histories shall be dictated or written by midnight of the day of admission.

The following outline shall be observed in the taking of histories and making examinations. This outline is prepared for guidance only for the purpose of insuring greater uniformity of histories. It shall not be construed as limiting the exercise of an interne's initiative in emphasizing certain points peculiar to the patient's condition.

OUTLINE OF HISTORY

COMPLAINT:

In patient's own words, and its duration.

FAMILY HISTORY

Condition of health of parents. If dead, cause of death. Number of brothers and sisters living, and condition of health. Number dead, and cause of death. Inquire if any member of the family has had tuberculosis, cancer, heart disease, kidney disease, insanity or bleeders.

PERSONAL HISTORY:

General state of health. Previous illnesses. Inquire especially if patient has had diphtheria, measles, scarlet fever, or other children's diseases, typhoid, pneumonia, rheumatism, malaria or "growing pains" in childhood.

HEAD:

Inquire as to headache (character and location), dizziness, faintness, memory, convulsions, disturbances of speech.

EARS:

Inquire as to condition of hearing, tinnitus, earache, discharge from ear (whether past or present).

EYES:

Inquire as to vision, diplopia, conjunctivitis, spots or swelling lids.

NOSE:

Inquire as to epistaxis, sense of smell, symptoms as pertain to abnormal conditions; i. e. discharge and its character, sneezing, nasal obstruction.

MOUTH:

Condition of teeth; previous sore mouth.

THROAT:

Previous tonsillitis or sore throat; dryness; previous swelling of neck.

LUNGS:

Inquire as to frequency of colds, and their relation to upper air passages; cough, expectoration, spitting of blood, night sweat, chilly sensations and where located; loss of weight.

HEART:

Inquire as to palpitation, shortness of breath. (To determine this, inquire how many pillows are used at night.) Inquire, too, whether dyspepsia is continuous, paroxysmal or nocturnal. Swelling of feet.

STOMACH:

Inquire as to appetite, thirst, belching of gas, nausea, vomiting, (character and time, relating to meals, and sudden changes in position); pain (its character and time, in relation to meals).

BOWELS:

Inquire as to distention, pain, constipation, diarrhea, character of stools, hemorrhoids, bleeding from the rectum.

URINARY SYSTEM

Inquire as to frequency of urination, day and night; pain or burning and its relation to micturition; passage of stones, gravel, blood, and its relation to micturition; incontinence, dribbling, delay in starting, retention.

GENITAL SYSTEM:

Inquire as to gonorrhea, syphilis or chancre; swollen testicle.

In Women

Menstruation, its frequency, duration and amount; dysmenorrhea; date of past period; leucorrhea.

Marital Life

Number of children, their health, age of youngest; number of miscarriages, whether induced or not.

BONES AND JOINTS:

Inquire as to pain, previous fracture, swelling of joints. Inquire also as to gait, station, especially with the eyes closed.

PRESENT ILLNESS:

To be given by patient in his or her own words, the examination elucidating by careful questioning the points in the history which are necessary to make clear the character and duration of the illness.

PHYSICAL EXAMINATION:

General nutrition, panniculus adiposus, appearance, intelligence, temperature, weight. Make thorough inspection.

CHARACTERISTICS OF THE SKIN:

Color, pallor, finger nails, cyanosis, icterus, edema, eruptions, pigmentations, scaling striae, moisture, dilated veins.

GLANDULAR SYSTEM:

Examine and report on enlargement of glands of neck, axilla, groin, epitrochlear.

HEAD:

Shape, condition of hair, pathological prominences or depressions, condition of the temporal vessels. **IN CHILDREN:** note size of fontanelle, whether bulging or depressed, and presence of cranio-tabes, and whether sutures are open or closed.

EARS:

Abnormality of shape, presence of tophi, mastoid; test hearing. Appearance of drum membrane and canals.

EYES:

Note conjunctivitis, sclera, size and peculiarity of pupils, reaction to light and accommodation, presence of nystagmus, strabismus, exophthalmos, ptosis, eye grounds.

NOSE:

Abnormality of shape, discharge, any obstruction of nasal cavity, any excessive or diminished movement of alae nasi, perforation of septum.

MOUTH:

Lips, herpes, fissures, scars at corner of mouth, condition of teeth; condition of mucous membrane of lips, cheeks and gums; size of tongue, coating, protrusions, tremor; and condition of fraenum, teeth, lead line abscesses, pyorrhea. **IN CHILDREN:** presence or absence of Koplik spots.

PALATE:

Height of arch, condition of uvula, scars, movement of the pillars and palate.

THROAT:

Condition of tonsils, presence of secretion on posterior walls of pharynx. (Note if patient is an habitual mouth breather.)

NECK:

Condition of thyroid, tracheal tugs; character of pulsation in vessels, murmurs and thrills in superior thyroid artery and description of them if present; scars.

CHEST:**(A) INSPECTION**

Shape, symmetry, expansion, type of breathing, drawing in inter-spaces, diaphragm phenomena of Litten, superficial veins, subcostal angle, movement on inspiration.

(B) PALPITATION

Verify information gained by inspection; tactile fremitus, presence of ronchi or friction fremitus, tumors of breast. IN CHILDREN, rosary.

(C) PERCUSSION

Border of lungs (apices and bases), excursion, comparison of two sides for any impairment of resonance.

(D) AUSCULTATION

Character of breath sounds or any adventitious sounds: vocal fremitus, D'Espine's sign in children; whispered voice sign.

CIRCULATORY SYSTEM:**PULSE:**

Rate, rhythm, regularity, character of the pulse wave, systolic and diastolic pressure, condition of the vessel wall, comparison of the two radials; always examine bedside, the radial artery, the brachial, carotid, femoral, dorsalis pedis, and posterior tibial, capillary pulse.

HEART:**(A) INSPECTION**

Position of the apex beat, its character, abnormal pulsation, retraction of the interspaces or bulging of precordium.

(B) PALPITATION

Presence of thrill, diastolic shock or friction, tracheal tug.

(C) PERCUSSION

Outline the heart, upper limit of dullness (express in terms of cm.) from the mid-sternal line at the level of the fourth interspace, and in men the relation of the border to the nipple). Special attention should be paid to percussion of the chest in the first and second interspaces on either side of the manubrium sterni, having in mind the question of aneurism dilation of the aorta or mediastinal tumors.

(D) AUSCULTATION

Character of the sounds of the heart, the time and quality of adventitious sounds, their change or lack of change on deep inspiration and expiration and their transmission. In auscultating the heart a definite routine should be followed starting at the apex then passing upward toward the pulmonic area then downwards on both sides of the sternum and over the sternum itself to the tricuspid area, in both sitting and prone positions.

ABDOMEN:**(A) INSPECTION (Most Important)**

Appearance, symmetry, motion with quiet and deep respiration, bulging of flanks, visible peristalsis, relaxation of muscles. Note umbilicus and Cullen's sign.

(B) PALPITATION

Note any sensitiveness, muscle spasm, rigidity, tumors, peristalsis; examine the different areas of the abdomen systematically having a definite order, and keeping in mind the different abdominal organs. Examine the hernial openings for epigastric hernia, fluid wave.

(C) PERCUSSION

Outline liver, spleen and stomach.

(D) AUSCULTATION

In case of obstruction, note the presence or absence of peristalsis; otherwise of little value.

RECTAL EXAMINATION:

Examine for hemorrhoids, tumor, enlargement of prostate, tumor of pelvis. Note also tonacity of sphincter, examine bimanually if possible.

GENITALIA:

Penis should be examined for scars, discharge, phimosis and malformations. Condition of testicle and epididymus. Look for the varicocele, and swelling of the cord. In special cases, the genitalia of the female should be inspected and vaginal examination made.

OSSEOUS SYSTEM:

The spine should be examined for mobility, tenderness and deformity, determine any pathological condition of the sacroiliac joints, the hands for abnormalities, clubbed fingers, the shafts and the epiphysis of long bones for unusual thickenings, or old fractures or tenderness. Condition of the shoulder, elbow, wrist, hip, knee and ankle joints, presence of flat feet, muscular atrophy and trivial scars or tenderness.

MUSCULAR AND NERVOUS SYSTEMS:

Note condition of reflexes, i. e., patellar, achilles, biceps, triceps, radial, and scapulo-numeral, proximal or acro-axata, skin reflexes, epigastric somma cremasteric, Babinski and Oppenheim sensation, touch, pain, thermic vibratory, co-ordination, sense of position, Rhomberg's symptom, involvement of the peripheral or cranial nerves, condition of muscles, look for atrophy or hypertrophy.

PROGRESS NOTE

Progress notes shall constitute a continuation of admission notes to be made and signed by the interne.

Notes of surgical operations shall be dictated by the first assistant at the operation and routed through the record room in the same manner as histories. Such notes shall be dictated on all surgical procedures regardless of where performed.

Post-operative notes shall begin on the day of operation. These notes shall be made daily by the interne if indicated and shall relate the progress of the patient, the general condition and any surgical procedures which may be done, such as dressings, removal of sutures, appearance of wound (whether healing per primum or not), complications, etc. All such notes shall be signed by the interne.

DISCHARGE

All histories must be completed before the patient's discharge and shall accompany the patient as he leaves the nursing unit or room.

When a patient is about to be discharged the interne shall write a heading "Discharge Notes" which shall be a continuation of progress notes and shall include the following:

- (a) The general condition of the patient.

- (b) The present status as regards the complaint, for which the patient was admitted.
- (c) In surgical cases the appearance of the wound and whether or not it has healed per primum.
- (d) Questionable infection on admission; any infection developed after admission.

To complete the history the interne shall then execute the lower section of the folder, observing the following rules:

(A) PROVISIONAL DIAGNOSIS:

This shall include the provisional diagnosis as made when the patient was admitted. If more than one provisional diagnosis has been made, they shall be put down in the order of their importance and possibility, as:

- (1) Acute appendicitis.
- (2) Acute salpingitis, etc.

When a patient enters the hospital for observation, the provisional diagnosis shall be designated as "admitted for diagnosis."

(B) FINAL DIAGNOSIS:

This is to include the final diagnosis or diagnoses in the order of their importance and occurrence. If an appendectomy has been incidental to the main operative procedure, it shall be recorded with the diagnosis as rendered by the attending pathologist: e. g.

- (1) Fibroid uterus.
- (2) Chronic salpingitis.
- (3) Chronic Obliterative Appendicitis, etc.

If no pathological condition be found, the diagnosis shall be designated as "No Disease."

If no diagnosis be possible, classification shall be designated as "No Diagnosis."

(C) OPERATION:

This includes all operative procedures carried out. They shall be recorded in the order of their occurrence. All appendectomies which are incidental to the main operative procedure shall be classified as such: e. g.

- (1) Hysterectomy.
- (2) Bilateral salpingectomy.
- (3) Incidental appendectomy, etc.

(D) CONDITION OF DISCHARGE:

The following classification shall be used, all discharges coming under one or the other:—

- (a) Relieved.
- (b) Improved.
- (c) Cured.
- (d) Unimproved.
- (e) Died.

The date of discharge shall be entered before the conditions on discharge, e. g.

"Discharged July 1, 1921, Improved."

Patient receiving radium treatment for the first time cannot be discharged as "Improved" after the first or subsequent treatments,

until the condition for which the radium has been applied shows clinical evidence of improvement. Such a patient is discharged without recording any particular condition. However, under "Remarks" record whether or not the patient is to return for further treatment: e. g.

"Discharged July 1, 1921

To return for further treatment."

(E) REMARKS

The following classification shall be used when necessary to complete information:

- (a) Release signed.
- (b) To return for secondary operation.
- (c) Transferred to other hospital (name of hospital).
- (d) Application of radium.
- (e) Removal of cast.
- (f) Boarder.
- (g) To return for further treatment.
- (h) Referred to O. P. D.
- (i) Donor for transfusion.

When infants are admitted for feeding purposes (when mother is a patient), no provisional or final diagnosis is recorded. Only the date of discharge and a classification of "Boarder" under Remarks is made.

When history folder is complete, it shall be filed in its proper place in the division office to accompany the patient on discharge.

All histories shall be inspected by the proper resident physician for approval signature. When histories are not complete or accurate as to notes on admission, examination, progress, post-operative, discharge, out-patient briefs, etc., the resident physician shall return such histories to the interne for correction and shall withhold his signature until such corrections are made.

When a history is finally approved by the resident staff it will be inspected and approved by signature of the designated member of the visiting staff.

If this outline is followed in general substance, it offers a suggestion for uniformity in an examination, but at the same time does not restrict the individual house man to certain spaces for the answering of certain questions. It is believed that this is much better than the printed forms used by some institutions. A copy of this outline may be

placed in the hands of each member of the attending and resident staff.

CONSULTATION	
Admission No. <u>16745</u>	
Date <u>1-6-23</u> Hour <u> </u>	
To <u>Medicine</u> Visiting Physician	
Name <u>John H. Boulder</u> No <u> </u>	
Ward <u>A</u> is referred to you. Our findings in the case are as follows:	
Please report in regard to	
We hope that you can see this case within <u>at once</u> hrs.	
If the patient requires treatment in your service, please take charge of that aspect of the case.	
<u>Dr. Brown</u> V. Physician	
Date <u>1-6-23</u> Hour <u>11:20 A.</u>	
To <u>Dr. Brown</u> V. P.	
Our findings in the case of <u>John H. Boulder</u> Ward <u>A</u>	
referred to us by you are as follows:	
<p>Inspection shows patient slightly synotic rapid respiration auscultation and percussion shows a massive consolidation at the base of the right lung dullness, bronchial breath- ing. Many medium moist & fine rales. The blood pressure 90/50 shows the circulation is weakening.</p>	
We recommend the following line of treatment:	
<p>Active stimulation. digitalis-caffeine and camphor</p>	
<u>Dr. Smith</u> V. Physician	
<p>All requests for consultations between members of the Medical and Surgical Staff, and also the opinion of the consultant, are to be made in writing. Such written opinions are to be incorporated in the Hospital records.</p>	
Form No. D-1-P	

FIG. 35.—Consultation Blank.

No one thing measures the relative efficiency of staff performance quite so well as the ratio of consultations obtained.

Unless consultations are definitely planned for, they will not be secured in as great a number of cases as they should;

X-RAY CONSULTATION		
Date <u>1-7-23</u>	Admission No. <u>16807</u>	
Name <u>Chris Williams</u>	Age <u>9</u>	Ward <u>13</u>
Request Examination of <u>Skull - Stereo Lateral & A.P.</u>		
Essential Clinical Data <u>Possible basal fracture</u>		
X-Ray Treatment for		
<u>Surgery</u> Service of Dr.	<u>Garroll</u> Internist	<u>Anderson</u> Resident
ROENTGENOLOGIC AND FLUOROSCOPIC FINDINGS		
<p><u>Longitudinal fracture about two inches</u> <u>in length involving the occipital</u> <u>bone on right side near the</u> <u>occipital protuberance and extending</u> <u>downward & forward. The fracture</u> <u>involves all plates. No depression.</u></p>		
Diagnosis		
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; margin-left: 10px;"></div> <div style="text-align: center;"> <u>E. J. Mattley</u> <small>Form No. D-1-L</small> </div> <div style="text-align: right;"> <small>ROENTGENOLOGIST.</small> </div> </div>		

FIG. 36.

therefore there is illustrated a blank devised for originating of consultation and for *Report of Consultation*. (Figure No. 35 reduced from 8½" x 11" size.)

SEND BILL TO		John Anderson		ADDRESS		1492 St. Clair Ave.		AUTHORITY	
TELEPHONE NO				RATE		\$3.00		ADMITTING DATE 1-7-23 DISCHARGE DATE	
NAME		Beulah Anderson		ADDRESS		1492 St. Clair Ave.		ROOM 116-A PATIENT 16806	
DUPLICATE OR LEDGER SHEET									
OLD BALANCE	DATE	ROOM	BOARD OF NURSE	X-RAY	OPERATING ROOM	MISC. CHARGES	CREDITS	BALANCE	
NAME		Beulah Anderson		ADDRESS		1492 St. Clair Ave.		ROOM 116-A PATIENT 16806	
ORIGINAL OR PATIENTS SHEET									
OLD BALANCE	DATE	ROOM	BOARD OF NURSE	X-RAY	OPERATING ROOM	MISC. CHARGES	CREDITS	BALANCE	

Fig. 38.—Patients' Ledger Sheet.

number of transactions in proportion to the size of the activity are inestimably greater in a bank than they are in

[illegible]

FIG. 40.—Ward Census.

a hospital. While all banks balance their transactions at the end of the day, hospitals very seldom do. To establish

Report of Board of Patients by ward. (Figure No. 41 reduced from 8½" x 11" size.)

Report of Charges other than board of patients. (Figure No. 42 reduced from 8½" x 11" size.)

The mechanism of these three forms is comparatively simple.

Having established a house census of the institution as of midnight of one night plus the twenty-four-hour report of admissions, minus the twenty-four-hour report of discharges, a house census is immediately produced as of midnight of tonight, together with all of the details of charges of that census, i. e., the name of all patients admitted and of all patients discharged.

As a further check on the accuracy of the institutional census, the individual ward census, previously illustrated, is originated. It is a comparatively simple matter, irrespective

DAILY REPORT OF SPECIAL CHARGES						Date	1-7	1923
FROM DEPT. <i>Nursing</i>			FOR <i>Delivery Room</i>		CHARGED BY			
Patient No.	Name of Patient	✓	Total	Detail	Description of Service			
16806	Anderson/Bentley		10.00		Semi-Private Rate			

FIG. 42.—Special Charge Blank.

of how large the activity, to check the individual ward census against the twenty-four-hour report of admissions and discharges, previously illustrated, and it is suggested that as a matter of interest reference be made at this point to previous illustrations in the text.

As a further use of this ward census, there may be developed the number of patient days or the total ward occupancy, and the division of these patient days into the various types of professional activity or patient bed days. All of this information is accumulated in the day book referred to later in the text. The ward census, together with the twenty-four-hour report of admissions and discharges, plus the status of the house of the previous night, furnishes

the total volume of work. If the hospital had twenty-six patients on Ward C at midnight last night—and the names of these twenty-six patients are known—and from the twenty-four-hour report it is learned that Mrs. Anderson and Baby Anderson have been admitted, then it is apparent that new cards must be originated for these two patients. If from the twenty-four-hour report it is learned that Mrs. Merrick and Baby Merrick have been discharged and that Baby Anderson was a still-born, then these three patients' cards must be taken out of the patients' card file. Immediately there is established the basis for computing, in addition to volume of work done, the charge for that work. This is accomplished by the form devised to accumulate the charge for board of patients. Reference will show that entries are arranged in the order of the bed occupied, so that there may be no omissions. These totals for each ward must check with the total of the individual ward census, and also the individual rates entered must agree with the rates shown on the patients' individual cards. This having been done, the total of this sheet immediately becomes the total earning power of the ward for the day, plus, of course, special charges that may be assessed against the patients. Each of the items on this sheet should be posted direct from this sheet to the individual patient's bill. The totals posted to patients' bills accumulated must be equivalent to the totals shown on the individual board sheets for all of the wards.

So far as special charges are concerned, each activity in the institution which may have occasion to originate a special charge should be furnished with a supply of the form illustrated. The items entered on these forms should be posted to the individual patients' accounts, the total of all of these sheets accumulated and the total of these accumulations plus the total of the accumulations for board of patients must equal the total of the amounts posted to the individual patients' cards.

IV. PURCHASE AND ISSUANCE

In outlining specific procedures for this phase of the institution's activity, there has been established a basic principle, i.e., every transaction is worthy of a detailed record, in order that there may be nothing left to memory pending the consummation of the transaction.

QUOTATION SHEET			
TO <u>Mr. Peabody and Company</u>		DATE <u>1/7/23</u> 19 <u>23</u>	
ADDRESS <u>Anywhere, U.S.A.</u>		BID NO. _____	
<p>You are hereby invited to quote below the lowest net prices, including all delivery charges, for which you are prepared to furnish the merchandise or services described below. An immediate reply will be appreciated.</p> <p>Bids must be made on this sheet and will be received at the office until _____</p> <p>Where a bid is asked for a certain article which may be substituted by another "equal thereto" and the bidder intends to furnish an article which he considers equal to the one named, he must specify in his bid the name and grade of said article and submit a sample, if possible, with the bid.</p> <p>This form is only an invitation to bid. It is not an order.</p> <p style="text-align: right;">Very truly yours, <div style="display: inline-block; text-align: right;"> <u>United Hospital</u> Per <u>Jones</u>, Purchasing Agent </div> </p>			
QUANTITY	UNIT OF MEASURE	PARTICULARS	UNIT PRICE
5 bbls. 10 cases 1000 yds		Detergent Cleaning Powder (similar to Tyndotte) Extra Standard Peaches (Bureau of Standard specifications) 20x24 Gauze	
THE ABOVE BIDS ARE SUBMITTED BY _____			
Signature _____		Title _____	

FIG. 43.

Another desirable principle to establish is that accepted purchase practices be indulged in by hospitals, i.e., that purchases of any moment whatever must be on a bid basis; these bids to be made with a uniform understanding of

specifications of the commodity to be furnished, terms of purchase, etc. Following these principles, the first step in the purchasing scheme is the request for quotations, and form of *Quotation Sheet* is herein illustrated. (Figure No. 43 reduced from 8½" x 11" size.)

PURCHASE ORDER TRIPPLICATE (BLUE)		No.
REQ. NO.	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> PLEASE REFER TO THIS NUMBER ON YOUR INVOICE AND PACKAGE LIST. NONE OTHER THAN TERMS SPECI- FIED WILL BE ACCEPTED. </div>	
TO		
PURCHASE ORDER DUPLICATE (YELLOW)		No.
PURCHASE ORDER ORIGINAL (WHITE)		No. 1642
REQ. NO.	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> PLEASE REFER TO THIS NUMBER ON YOUR INVOICE AND PACKAGE LIST. NONE OTHER THAN TERMS SPECI- FIED WILL BE ACCEPTED. </div>	
TO		
TO Mr Peabody and Company, Anywhere, U.S.A.		
DELIVER TO United Hospital Somewhere, U.S.A.		
THE FOLLOWING DESCRIBED MERCHANDISE:		
Account 412	5 bbls Wyandotte Detergent	\$.175 per cwt
573	10 cases Maybloom Peaches	8.25 per dozen
502	1000 yards	4.85 per cwt
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 30%;"> TERMS: 2 1/2 10 days first of month dating </div> <div style="width: 60%; text-align: right;"> _____ Superintendent </div> </div>		
Form No. B-1-2		

FIG. 44.

The next step in the transaction, the quotation having been accepted, is the origination of a purchase order, and a *Purchase Order Form* is herein illustrated. (Figure No. 44 reduced from 8½" x 5½" size.)

This form should be originated in triplicate, the original

going to the vender of the merchandise, the duplicate to the accounting department or to the desk of the individual responsible for the purchase, and the triplicate going to the storeroom to be used as a tickler pending receipt of the goods. A copy of *Goods Receiving Slip* is illustrated. (Figure No. 45 reduced from 4" x 6" size.)

No. 1843

RECEIVED OF *Wm. Peabody & Co.*

DATE *1-8-23*

ORDER No. *1642*, THE FOLLOWING:

1000 Yards of Gauze

-Partial Delivery

J. M. Jones Storekeeper

Form B-1-C

FIG. 45.—Goods Receiving Slip.

This form should be made in duplicate; one copy to be transmitted to the accounting department to be incorporated as a part of the file supporting payment of the bill, and the other copy to be retained in bound form in the storeroom as a part of the storeroom record.

In some instances it is necessary to return goods on account of improper delivery or for other reasons. The return of goods should be made a matter of record, just as is the receipt of goods, and a copy of this form is illustrated. (Figure No. 46 reduced from 3½" x 6½" size.)

The original of the above form should be sent to the accounting office, pending receipt of proper credit memorandum. The duplicate should be retained in the storeroom in bound form as a part of its permanent records.

RETURNED GOODS CREDIT	
RETURNED TO <i>Mrs. Peabody & Co.</i>	DATE <i>1-8-1923</i>
<i>10 cases Peaches</i>	
	<i>Not as ordered.</i>
	RECEIVED BY <i>A. Driver.</i>
Form B-1-D.	

FIG. 46.—Goods Returned Slip.

The next step in the procedure is the establishment of a permanent inventory, both as to receipts and disbursements. Either of the two forms illustrated may be used for this purpose. *Card Form of Inventory* (Figure No. 47 reduced from 6" x 9" size) or *Sheet Form of Inventory*. (Figure No. 48 reduced from 16" x 21" size or any size desirable.)

It will be noted that each of these forms provide for a detailed record of receipts as to amount of purchase, price of purchase, total amount in money and also for a detailed commodity disbursement. Each individual institution should make its own decision as to form to be used.

Concerning distribution, there is illustrated an individual

[illegible]

Requisition Blank that has proved satisfactory. (Figure No. 49 reduced from 5" x 8" size.)

The important thing to emphasize is that this blank should be used in every instance for the withdrawal of any com-

[illegible]

FIG. 49.—Requisition Blank.

[illegible]

FIG. 50.—Narcotic Blank.

modity from stores and should always be signed by the administrative head or by some member of the administrative personnel, specifically designated with this authority. Approval of supply requisitions by other than a member of the

Record of Narcotics (Figure No. 50 reduced from 8½" x 11" size.)

FIG. 52.

The forms in themselves are self-explanatory.

[illegible][illegible]

If the purchase activity of the institution is of any size whatever, two other records are absolutely essential to efficient operation.

Record of Outstanding Purchase Orders (Figure No. 53 reduced from 8½" x 11" size).

This form is devised to eliminate the possibility of duplicating purchases. Its use is self-evident.

Another form that can be used to advantage in the guidance of the purchasing agent is a *Record of Purchases* originated and filed alphabetically by commodity. This card form is illustrated. (Figure No. 54 reduced from 5" x 8" size.)

With the use of a form like this the purchasing agent immediately has available details as to price, terms, etc., on a given article over a long period of time. The value of the record becomes increasingly great with the length of time it is kept.

V. ACCOUNTING

In this division an attempt will be made to demonstrate the origin of all entries and to carry these entries through in the books of the institution. It would be impossible to outline definitely all of the steps in an accounting procedure. No effort whatever is made to touch on the corporation phase of the activity. It is believed, with the establishment of this groundwork, that any institution may grasp the principle of the system and adapt it to its own individual needs.

It will please be understood that this is identical with the system advocated by the American Hospital Association committee on forms and records.

In the chapter on billing of patients, there were established procedures for computing the earnings of each of the various nursing units for each day of the week. These daily sheets should be totalled, and for a week should be totalled and recapitulated. At that time a journal entry is orig-

JOURNAL ENTRY						NO. 18	DATE 1-31 1923.
ASST. NO.	ACCOUNT	DEBIT	CREDIT	MEMO	Y	Y	
572	Dietary Supplies	58.50					
573	Foodstuffs		58.50				
200	Patents/ Accts. Rec.						
301	Board of Pay Patients		2982.45				
302	" " " "		2377.00				
303	Operating Room		941.00				
304	Telephone		4.45				
305	X Ray		460.00				
306	Laboratory		6300				
		6794.60					
				Correction of Distribution on Voucher 1-85 (See Voucher)			
				Recapitulation of Expenses from Patients Weeks ending Jan. 8, 1923			

FORM NO. 101A MADE BY S. H. ENTERED J. F. NO. L. A. W. APPROVED BY F. E. C.

FIG. 55.

inated, and these earnings are written into the proper control account of the ledger. As an illustration of this transaction there is inserted a copy of *Journal Entry Sheet*. (Figure No. 55 reduced from 8½" x 11" size but can be any standard accounting size.)

Actual cash received from patients should be posted daily, from the individual receipts given patients at the time bills are paid, into a general cash receipt book, these amounts being distributed at the source as illustrated in *General Cash Receipt Book*. (Figure No. 56 reduced from 17" x 14" size or any standard accounting size.)

This illustration shows the last sheet of a given month for a specific purpose: to illustrate the recapitulation of the month's transactions. It will be noticed that this is distributed in general throughout the month and recapitulated at the end of the month into the various income accounts. The cash receipt book forms one link in the maintenance of the bank balance of the institution.

In order that there may be a permanent, complete record of all payments, the check or voucher system of payment should be devised to permit of filing all supporting documents in one place.

There is illustrated a *Form of Voucher* that is suggested as satisfactory. (Figure No. 57 reduced from 7" x 8½" size or any standard accounting size.)

This voucher form is originated in duplicate, the original being in fact the check, the duplicate being filed with papers supporting the transaction, i.e., a copy of the quotation; a copy of the purchase order; a copy of the receipt of the storeroom establishing receipt of goods; the invoice; all of these various records having been checked one against the other as to correctness of receipt, price, extension and terms, and the whole having been approved and passed for payment. Attention is called to the fact that the upper portion of this form provides for distribution of these expenses. These

GENERAL CASH RECEIPT

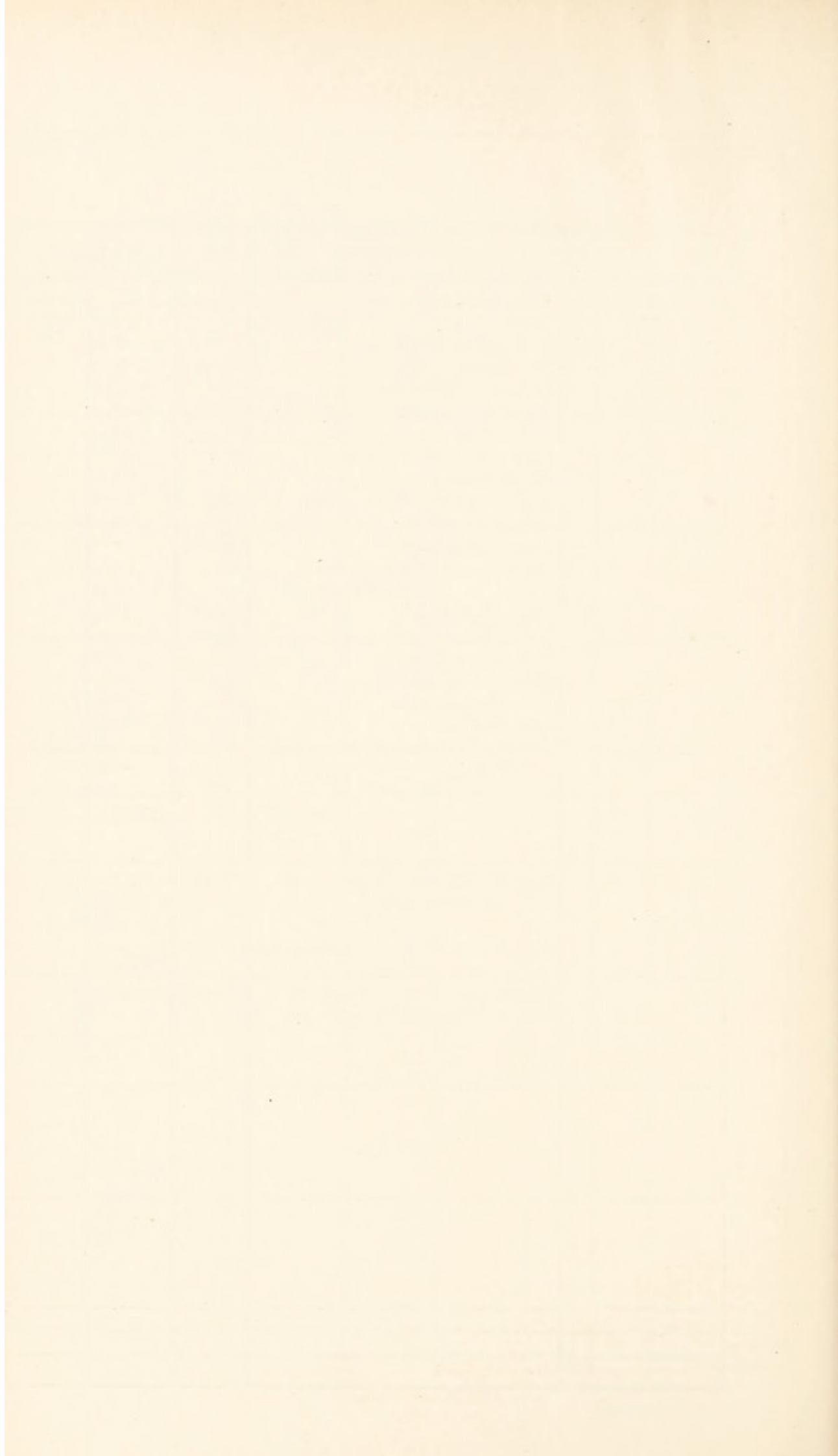
FOLIO 887

Month of August 1923.

DAY	NAME	RECEIVED FROM	PATIENT NUMBER	DEBITS		ACCOUNT	C R E D I T S				
				MTY CASH RECEIVED	SUNDY		FULL PAY PATIENTS ACCOUNTS	PART PAY PATIENTS ACCOUNTS	SUNDY	DONATIONS	SUSPENSE ACCOUNTS
		FORWARD		42978.29	16909		16740.99	13398.18	17577.6	11124.50	13000
31	Coatherine Bartgens		2124	14.00				24.00			
	Mr. Harris		2128	17.50				17.50			
	Morris Goldberg		5	3.00							3.00
	Isella Davis		2118	25.00				35.00			
	Abel Davis		6	20.00				20.00			
	Sam Kutasch		7	21.00	15.00	Surgery		36.00			
	Dispensary			20.60					20.60		
	James Stotter		C 311	72.50			72.50				
	Thomas Hoag		Old	10.00				10.00			
	Mr. O. Mayfield		Old	4.00				4.00			
	Ind. Com. Chas. Lauer			3.00				3.00			
	" " Sol. Goldwasser			8.00				8.00			
	Miss O. Band		C 321	94.00			94.00				
	Julia Markovitz		Paper	1.00					1.00		
	Florence Martin		H. C.	2.00				2.00			
	Katherine Kirschen		C 330	50.00				50.00			
	Pres. Bumpus		RD	14.00				14.00			
	Miss Fabian		C 304	50.00			50.00				
	Julia Markovitz		Paper	60					60		
	J. Katz		B 227	86.60			86.60				
	Interest			4.14					4.14		
				43515.49	184.49		17044.44	13621.68	17803.6	11124.50	13000
	Bank Balance Aug 1-1923		C 7863	700.08		50 Corporation Account	43519.63				
	August Deposits		C 143	4434.50		201 Board Outlay Patients	41.50				
				4506.50		202 Board Outlay Patients	97.59				
	Withdrawn to Operating Fund Aug		C 143	4190.82		205 X Rays	45.00				
				3157.28		206 Patients Accounts Rec.		3066.57			
	Check returned (No Funds)		J. E 385	3.50		11 Suspense Accounts		133.00			
	Bank Balance Aug 31-1923			3122.38		12 H. & M.		207.88			
						130 Doubtful Accounts		11.30			
						150 Nurse Home		76.89			
						204 Telephone		57.48			
						208 Interest		4.14			
						209 Donations					
						Federation		1083.30			
						Simple Children's Hl		206.50			
						Memorial		81.00			
						211 Papers		41.47			
						303 Night Clinic		238.00			
						313 Day Clinic		111.58			
						412 Housekeeping Supplies		10.13			
						417 Dist. Inf.		15.00			
						412 Foodstuff		20.20			

FIG. 56.

(Facing page 248)



REQUISITION NUMBER	DATE OF INVOICE	AMOUNT OF INVOICE	DEDUCTIONS	NET AMOUNT	DISTRIBUTION
ORIGINAL VOUCHER					
THE ABOVE IS A DETAIL OF PAYMENT MADE. NO RECEIPT NECESSARY. PLEASE DETACH BEFORE DEPOSITING.					
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p style="text-align: center;">(NAME OF HOSPITAL)</p> <p style="text-align: center;">(CITY,) (STATE)</p> <p style="text-align: center;">To (NAME OF BANK)</p> </div> <div style="width: 35%;"> <p>VOUCHER No. 192</p> <p style="text-align: center;">\$</p> <p style="text-align: center;">(NAME OF HOSPITAL)</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 40%; font-size: 0.7em;"> <p>FORM NO. 4-2-0.</p> </div> <div style="width: 20%; text-align: center;">6-68</div> <div style="width: 40%; text-align: right;"> <p>_____ SUPERINTENDENT</p> </div> </div>					

REQUISITION NUMBER	DATE OF INVOICE	AMOUNT OF INVOICE	DEDUCTIONS	NET AMOUNT	DISTRIBUTION
OFFICE OR FILE COPY OF VOUCHER					
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>CONFIRMED CORRECT:</p> <p style="text-align: center;">_____ ACCOUNTANT</p> </div> <div style="width: 55%;"> <p>APPROVED:</p> <p style="text-align: center;">_____ SUPERINTENDENT</p> </div> </div>					

FORM NO. 4-2-0.

FIG. 57.—Voucher.

individual vouchers must be entered into a permanent record, and a *Voucher Register* is herein illustrated. (Figure No. 58 reduced from 16" x 21" size or any standard accounting size.)

This voucher register is accumulated at the end of the month and distributed to various accounts in the same manner as cash receipt book previously illustrated and is the cash disbursement book to be illustrated later.

Another form of voucher which for ease of handling should be kept separately is the *Payroll*, form for the proper handling of which is illustrated. (Figure No. 59 reduced from 8½" x 11" size.)

The departmental payroll is designed to be filled in by the department head for the purpose of reporting actual performance of departmental personnel to the accounting department. This payroll, with rate and time established, properly computed by the accounting department and approved as to correctness by the department head, immediately assumes the same status as an invoice for goods received, and can be used as a basis for originating *Payroll Checks*. (Figure No. 60—standard check size.)

It will be noted that the payroll check is a receipt unto itself, but if the institution contemplates payment by cash, it must carry a blank space for the purpose of obtaining receipt from the attachés of the institution. (Figure No. 61 reduced from 8½" x 11" size.)

Irrespective of whether this payment is by cash or by check, the composite payroll should be accumulated and an expense voucher originated for the total amount, this amount to be distributed to various expense accounts in the voucher register and also entered in the general cash disbursement book referred to later.

It is proposed that all vouchers be filed chronologically, and, in order to furnish the cross-index, alphabetically. A *Voucher Index Card* is submitted for consideration. (Figure No. 62 reduced from 3" x 5" size.)

Countersigned		NAME OF BANK	No.	
			City	19
	Pay to the Order of		\$	
	PAY ROLL CHECK <small>Must be cashed within five days</small>	NAME OF HOSPITAL	_____ <small>Superintendent</small>	
Countersigned		NAME OF BANK	No.	
			City	19
	Pay to the Order of		\$	
	PAY ROLL CHECK <small>Must be cashed within five days</small>	NAME OF HOSPITAL	_____ <small>Superintendent</small>	
Countersigned		NAME OF BANK	No.	
			City	19
	Pay to the Order of		\$	
	PAY ROLL CHECK <small>Must be cashed within five days</small>	NAME OF HOSPITAL	_____ <small>Superintendent</small>	
Countersigned		NAME OF BANK	No.	
			City	19
	Pay to the Order of		\$	
	PAY ROLL CHECK <small>Must be cashed within five days</small>	NAME OF HOSPITAL	_____ <small>Superintendent</small>	

Form No. A-2-1

FIG. 60.—Payroll Check.

All vouchers, in addition to being entered in the voucher register, where they are distributed to the various accounts,

PAYROLL					
DEPARTMENT		FOR _____ 19__			
NAME	OCCUPATION	TIME	RATE	AMOUNT	RECEIPT IS HEREBY ACKNOWLEDGED OF ALL MONEY DUE ME TO DATE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
Total Forwarded					
Form No. 44-a-D					

FIG. 61.—General Payroll.

also must be entered in the general cash disbursement book so that the bank balance may be maintained. This *General*

FOLIO 141											
MONTH OF July 1923											
GENERAL CASH DISBURSEMENTS											
BANK DEPOSITS	DAY	PAID TO	CHECK NUMBER	BANK CREDITS		SUNDY CREDITS	ACCOUNT	ACCOUNTS PAYABLE			
								VOUCHER NUMBER	AMOUNT		
	31	Bessie Douché	13773	15.00				7-45	15.00		
		" Betty Cash (R. Solomon)	13273	6.00				7-46	6.00		
		" Eleanor Tracy	13274	6.00				7-47	6.00		
		" Ernest Corbelle	13275	58.02				7-48	58.02		
		" H. C. Lang	13276	303.85				7-49	303.85		
				42851.17					42851.17		
		Recapitulation of Payroll Account					Recapitulation of Operating Account				
		Checks not cleared					Checks not	13093	10.00		
		Interest to date	283				Cleared	13100	230.65		
	3494	L. K. Bismarck	500					13158	258.74		
	3467	H. Singleton	6.00					13200	8.10		
	3481	M. Benjamin	7.00					23	22.12		
	3545	F. Novak	375					48	9.50		
	3676	R. Speng	5.00					57	5.00		
	3754	G. Strick	87.50					58	5.00		
	3772	C. McIntyre	65.00					59	5.00		
	3786	M. Probert	40.00					60	20.00		
	3787	C. Kline	40.00					61	5.00		
			262.08					64	9.00		
		O.K. Bank 7-31-23						65	7.00		
		L.H.W.						66	24.00		
								67	39.00		
								68	1159.15		
								69	10.00		
								70	4.00		
								71	64.00		
								72	15.00		
								73	6.00		
								74	60.00		
								75	58.02		
								76	303.85		
								1337258	Outstanding		
								1211079	Overdraft on our books		
								326176	Bank Balance		
									O.K. with Bank		
									7/31/23 - L.H.W.		

Fig. 63.

CENSUS REPORT

PERIOD ENDING 12 MIDNIGHT October 3rd, 1923.

	A	B	C	D	E	F	G	TOTAL
Total Patients Previous Report	38	26	70	13	12	19	17	195
Total Patients Admitted	4	5	4		5		1	19
Total Patients Died								
Total Patients Discharged	5	5	2	1	2	3	2	20
Total Patients in Hospital 12 m.	37	26	72	12	15	16	16	194

Rate of Income	New Born	Gratis	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	TOTAL
Ward A							6	19						12	37
Ward B		3											22	1	26
Ward C	35	3			4			16						14	72
Ward D		5	4	1	1	1									12
Ward E		8				2		3		2					15
Ward F		5	1		3	1		1	2	1					16
Ward G		1	1				3	9	2						16
TOTAL	35	27	6	1	8	4	9	48	4	3	48	1			194

Deposit 10-4-23 - 1183.60

Balance Holding Fund	\$4283.16	Total Deposit for Month	\$16017.26
Balance Due on Approved Lists	No. 82 \$1504.80	Total Deposit for Previous Month Same Date	\$12880.47
	No. \$		
	No. \$	Collected from Patients to Date	\$3634.83
	No. \$	Collected from Patients Same Date Last Month	\$1903.25
	TOTAL \$		
Balance or Deficit	\$	Miscellaneous Income to Date	\$1514.43
Total Vouchers Not Listed	\$11547.49	Miscellaneous Income Same Date Last Month	\$144.22
Net Balance or Deficit	\$8769.13		
Total Operating Fund	\$607.73	Donations for Month	\$10868.00
Total Outstanding Checks	\$	Donations Same Date Last Month	\$10833.00

Report of Fiscal Agent
September 1-30, 1923

Transferred.....\$6496.05
 Collected.....4177.80
 \$2318.25 - Increase in Inactive Total

FIG. 64.—Superintendent's Morning Report.

ings and bank balances. A form devised for this purpose is illustrated. (Figure No. 64 reduced from 8½" x 11" size.)

The first part of this report shows the patient occupancy divided between the various units of the institution. The form illustrated is an actual copy of the daily report of an institution. The second portion has to deal with the financial status of the patients on the various nursing units; and the third with the status of all bank accounts. With such a form in operation (and its preparation does not entail in excess of fifteen minutes each morning), the superintendent has before him a picture of the entire institution's activity.

There is next illustrated the *Hospital Day Book* set up for the purpose of establishing a daily record of performance of professional and vital records. (Figures 65 and 66—each sheet reduced from a 9" x 11" size.)

The information from which this record is compiled is obtained from the ward census, the daily report of department heads, the operating schedule, all of which data can be assembled in a comparatively short period of time. An intensive weekly study of this record will give the superintendent an intelligent understanding of his institution's performance which can be obtained in no other way.

Illustrating three of the departmental report forms, there is submitted a *Report of the Dietary Department*. (Figure No. 67 reduced from a 5" x 8" size.)

Report of the Laundry Department. (Figure No. 68 reduced from a 5" x 8" size.)

Report of the Engineer's Department. (Figure No. 69 reduced from a 8½" x 11" size.)

These reports should come over the superintendent's desk daily and should then be transmitted to the desk of the person keeping this record.

As another means of analysis of performance there is sub-

CENSUS OF PATIENTS														
DATE	ADMISSIONS	DEATHS	DISCHARGES	TRANSFERS	OTHER	TOTAL	NEW	RE-ENTRANTS	ALL	MALE	MALE MEDICAL	MALE SURGICAL	MALE OTHER	MALE SPECIALTIES
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
TOTAL														

CENSUS OF PATIENTS														
DATE	ADMISSIONS	DEATHS	DISCHARGES	TRANSFERS	OTHER	TOTAL	NEW	RE-ENTRANTS	ALL	MALE	MALE MEDICAL	MALE SURGICAL	MALE OTHER	MALE SPECIALTIES
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
TOTAL														

CENSUS OF PATIENTS														
DATE	ADMISSIONS	DEATHS	DISCHARGES	TRANSFERS	OTHER	TOTAL	NEW	RE-ENTRANTS	ALL	MALE	MALE MEDICAL	MALE SURGICAL	MALE OTHER	MALE SPECIALTIES
32														
33														
34														
35														
36														
37														
38														
39														
40														
41														
42														
43														
44														
45														
46														
47														
48														
49														
50														
51														
TOTAL														

FIG. 65.—Professional Day Book. The two sheets illustrated above are used as a post binder, one line continuing across the two sheets and on both sides of the two sheets being one day's record of performance.

[illegible]

A blank manuscript page with a wavy top edge and a vertical line on the left. The page is divided into 20 columns by vertical lines. A circular hole is visible on the left edge. The right edge has a vertical scale from 1 to 31.

[illegible]

FIG. 66.—Physical Day Book. The two sheets illustrated above are used in a post binder, one line continuing across the two sheets and on both sides of the two sheets being one day's record of performance.

HOSPITAL ORGANIZATION

Dietary Report						Date	
Personnel	Officers	Doctors	Nurses	Special Nurses	Employees	Night Attaches	Total
Breakfast							
Dinner							
Supper							
Nursing Units							
Regular							
Light							
Soft							
Liquid							
Special							
Guests							
Doctor's R							
Total							
Form No. 11-1-1							

FIG. 67.—Dietary Report.

DAILY LAUNDRY REPORT		192__
Rough Dry	Soda Used	
Press and Finish	Soap Used	
Hand Finish	Other Supplies	
Flat Work		
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; margin-right: 10px;"></div> <div> <p style="margin: 0;">Total</p> <p style="margin: 0;">Pounds of Laundry Work</p> </div> </div>		

Form No. 11-1-C
*Foreman

FIG. 68.

[illegible]

These are but a few of the many methods of checking up the institution's performance.

With an increasing understanding of the value of these studies, the superintendent will from time to time develop new methods of checking. The important thing is that he should recognize the importance of a sympathetic analysis of performance, so that he may possess an actual knowledge of what is taking place in the institution.

CHAPTER XV

CONCLUSION

In a crystallization of the author's ideas of a hospital and its management, no more concrete statement can be made than that contained in a report on the "Principles of Hospital Administration and the Training of Hospital Executives" submitted by a committee appointed and financed by the Rockefeller Foundation, to make a study of the subject of training hospital executives, and it is the author's privilege to quote a paragraph from it:

"The hospital can not be separated from the problems of health. Security, happiness and progress, national no less than individual, are in considerable measure dependent upon individual health and vigor. Health, as such, is a positive state which, within limits, can be maintained or restored, and it is incumbent upon communities to have within themselves or accessible reasonable provisions for such maintenance and restoration."

The hospital in its truest sense is an ideal of service, conceived and dedicated to combat disease, including within its operation all of the facilities known to humankind for the alleviation of suffering. Its operation is predicated upon a group of community problems and an inclination on its part to meet the demands of community service that may be made upon it.

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