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47th General Hospital

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47th General Hospital

the hospitalers

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PROFESSIONAL SERVICE IN A GENERAL HOSPITAL

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SPECIAL LESSON No. 4 (Series 1938-9)	- Reciprocal Function between the Medical and Surgical Services of a General Hospital.
ESTIMATED TIME	- 2 hours.
TEXT ASSIGNMENT	- Special text No. 4 (1938-9)
MATERIALS REQUIRED	- None.
MAXIMUM WEIGHT	- 100

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The object of this lesson is to emphasize the necessity for a planned organization as far as the assignment of the professional personnel and the arrangement of the hospital wards are concerned so that our unit can be readily adjusted to the ebb and flow of medical and surgical cases. The hospital plan here included is entirely presumptive. This plan must allow for the readjustment of bed and ward allottment between the Medical and Surgical Services, depending upon the relative demand of the situation. This plan must also include a temporary reassignment of officer personnel between the Medical and Surgical Services to deal with the professional requirements of the situation.

EXERCISE:

GENERAL SITUATION: War was declared by Blue on Red on September 15, 1939, after border incidents in which Red troops invaded Blue territory and were guilty of overt acts against citizens and property in several border towns. After preliminary invasion of Blue territory by mechanized Red forces, the enemy was driven north by the fully mobilized and mechanized Blue army. The Blue army, well north of the boundary (Monterey - Fresno - Independance (California)). Both armies are facing each other (Feb. 1, 1939) on the line: Santa Cruz - San Jose - Merced, holding well entrenched lines defended by elaborate field fortifications.

FIRST SPECIAL SITUATION: The 47th General Hospital, a Blue reserve unit, located since 10 January in a large boarding school in Fresno, California, has been takingcare of the sick and wounded of the I Blue Army evacuated to it from the front.

As the hospital is now situated, the various wings with their respective wards, halls and other rooms are divided into sections and allotted to the various services. The general plan of the school building with the arrangement of the sections is shown in the accompanying diagram. The Service to which the section is normally assigned together with the bed capacity of each is also shown.

On 21 January there were 376 patients in the hospital divided among the various Services as follows:

Medical Service 52

- General Medical Section 41
  (Pneumonia, 32 cases; influenza 9 cases)
- Contagious Disease Section (scarlet fever) . 7
- Psychiatric and detention ward 4
  (3 prisoners, 1 mental case)

Surgical Service 288

- Orthopedic Section 142
  (84 non-infected, 58 infected cases)
- General and Abdominal Section 58
- Thoracic Surgery Section 42
- Neurosurgical Section 27
- Genito-urinary Section 19

E., E., N. & T. and Dental Services 36

REQUIREMENT 1 -

Weight 35 — On one of the accompanying diagrams, indicate the distribution of patients as of date of 21 January.

SECOND SPECIAL SITUATION: Early in February, an epidemic of influenza broke out in a nearby concentration camp for Red prisoners and the commander of the I Blue Army ordered the sick to be cared for in the 47th General Hospital insofar as this was possible. During the first three weeks of this month 403 patients with influenza were admitted to the Hospital, adding to the present number of 411 patients (with distribution about the same as in First Special Situation).

REQUIREMENT 2 -

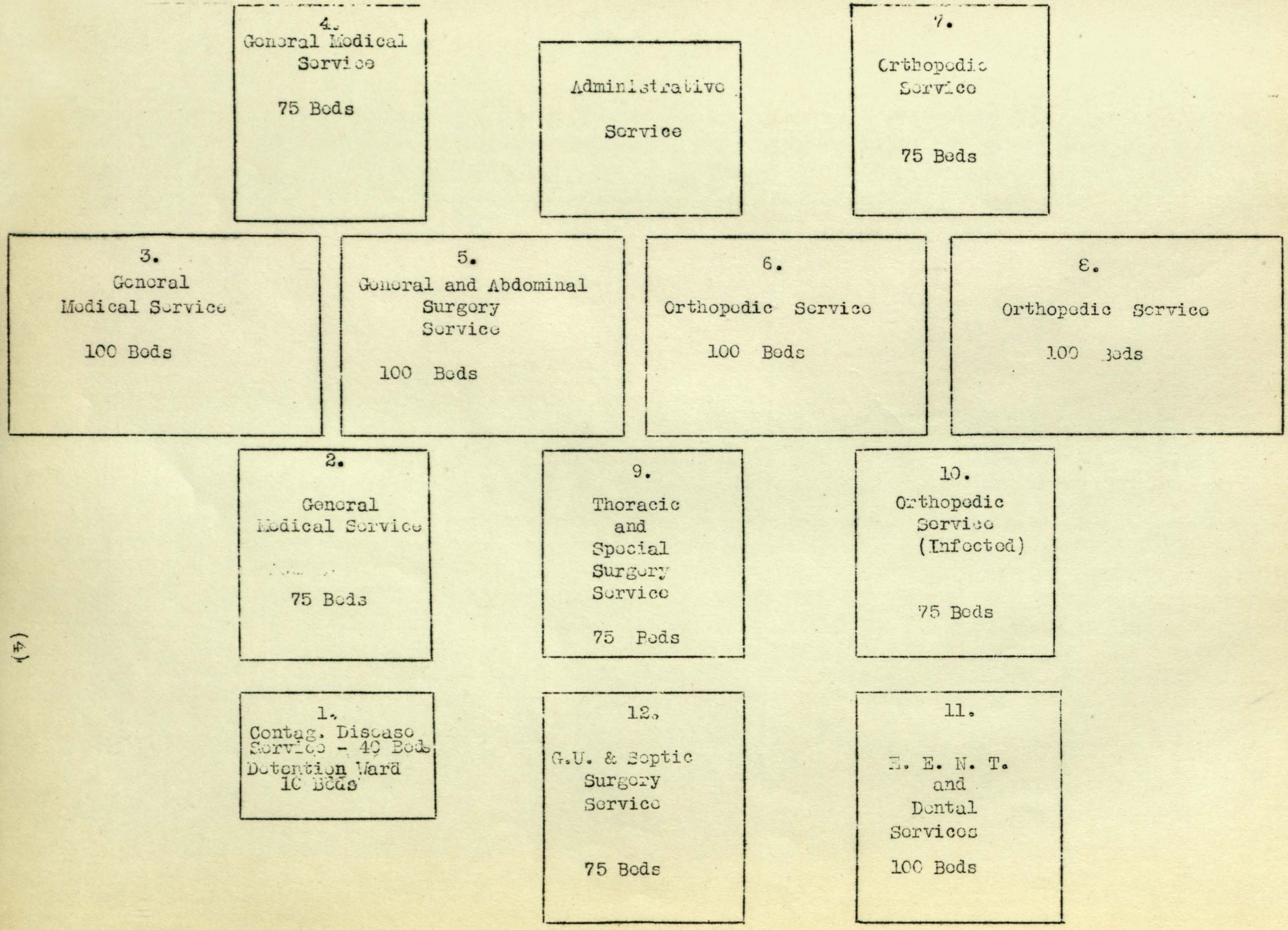
Weight 30 — On one of the accompanying diagrams, indicate the distribution of patients as of 22 February, making no special allowances for the 54 deaths during this period due to the disease.

THIRD SPECIAL SITUATION: On 20 March, the hospital census was 320 patients. As a result of the spring offensive, large numbers of wounded are being admitted to the hospital every few days. By the 10 April, the hospital census was 846 patients, distributed among the various Services as follows:

Medical Service	107
General Medical Section (mostly pneumonia)	62
Contagious Disease Section	40
(Scarlet fever, 20; measles, 12; venereal diseases, 8)	
Psychiatric and detention ward	5
(Prisoners, 2; mental cases, 3)	
Surgical Service	643
Orthopedic Section (179 non-infected; 139 infect.)	318
General and Abdominal Section	136
Thoracic Surgery Section	122
Neurosurgical Section	46
Genito-urinary Section	21
Eye, Ear, Nose and Throat and Dental Services	96

REQUIREMENT 3 -

Weight 35 — On one of the accompanying diagrams indicate the distribution of patients as of 10 April.


4.
General Medical Service
75 Beds
Administrative Service
7.
Orthopedic Service
75 Beds
3.
General Medical Service
100 Beds
5.
General and Abdominal Surgery Service
100 Beds
6.
Orthopedic Service
100 Beds
8.
Orthopedic Service
100 Beds
2.
General Medical Service
75 Beds
9.
Thoracic and Special Surgery Service
75 Beds
10.
Orthopedic Service (Infected)
75 Beds
1.
Contag. Disease Service - 40 Beds
Detention Ward 10 Beds
12.
G.U. & Septic Surgery Service
75 Beds
11.
E. E. N. T. and Dental Services
100 Beds

Special Lesson No. 4.
(1938-39)

SOLUTION

1. Situation as of 21 January.

7 cases of scarlet fever and 4 detention cases in section 1.
Weight 9 cases of influenza and 32 cases of pneumonia in section 2.
35 142 fracture cases in sections 8 and 10.
58 abdominal cases in sections 5 and 12.
42 chest cases in section 9.
27 head and spinal cases in section 9.
19 genito-urinary cases in section 12.
36 maxillofacial cases in section 11.

2. Situation as of 24 February.

All surgical cases (general, abdominal, thoracic, etc)
Weight will be collected in sections 8, 9 and 12 depending
30 whether clean or infected.
Other cases as before.
Influenza cases to be admitted to sections 2, 3, 4,
5, 6 and 7 if necessary.

3. Situation as of 10 April.

45 contagious, venereal and detention cases in section 1.
62 medical cases in section 2.
Weight 136 general and abdominal surgical cases in sections 3,
35 4, and 12 depending whether clean or infected.
122 thoracic cases in sections 5 and 12.
46 neurosurgical cases in section 9.
21 genito-urinary cases in section 12.
96 maxillofacial cases in section 11.

SPECIAL TEXT No. 4

(1938 - 39 Series)

THE PRINCIPLE OF RECIPROCAL FUNCTION BETWEEN THE MEDICAL AND SURGICAL SERVICES OF A GENERAL HOSPITAL

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The function of a general hospital in time of war is to render appropriate medical service to a Field Army. Made necessary by the type of service rendered, a general hospital is essentially a fixed unit in established and permanent quarters. Although this is true, it is important for such a unit to be prepared at any moment to adapt its professional service to meet varying situations. A general hospital may serve as an independent unit or be combined with other general hospitals to function as an integral part of a hospital center. In the latter case its professional function is apt to be more or less highly specialized and would be less liable to fluctuation than when acting as an independent organization.

Variations in the Professional Service in a General Hospital

The possible variations in professional function may be illustrated by referring to certain possible military situations. If a general hospital were functioning with an army not in actual combat, the hospital would probably serve the army much in the same way as a hospital would serve civil population, taking care of patients with incidental illnesses, surgical diseases and injury as would develop in the Army, rendering particularly direct service to those troops attached to the Army Headquarters. On the other hand, if the hospital were serving an Army in the presence of an acute epidemic of some infectious disease, its service would largely be medical and special, depending somewhat on the nature of the disease or diseases being treated in the hospital. On the other hand, when the hospital was servicing an army engaged in combat with the enemy forces, the type of service would be predominently surgical. The possibility of these various eventualities demands that a general hospital be so organized professionally as to make it readily adapted to meet changing situations, although it is primarily organized to care for the wounded and sick from the combatant arms and services in the combat zone in advance of it. The expected predominance of traumatic wounds makes it imperative to assign to the Surgical Service in the organization of the hospital a majority of the beds and personnel as compared to the Medical Service.

A Plan for Readjustment of Beds and Personnel under Variable Situations

It is the purpose of this paper to suggest a plan of professional service in a general hospital so that the medical and surgical staff can rapidly adapt themselves to meet any changing medical situation in an orderly fashion. The necessity of such a plan seems evident when one considers the demands of space and equipment for the various types of professional service and the previous medical and surgical training of the officers on the services involved. By having a pre-arranged plan for the orderly ebb and flow of medical and surgical service, the chances for delays, misunderstandings and the consequent disturbance of morale would be materially lessened.

According to Table 683-W, a general hospital in time of war has a normal bed capacity of one thousand patients and an officer personnel of forty-two. Excluding the Chaplain and the Quartermaster, there remains forty officers ten of which are assigned to the Administrative Service of the hospital. This leaves thirty officers primarily concerned with a professional care of patients. Of this group, a lieutenant colonel is Chief of the Medical Service and another lieutenant colonel is Chief of the Surgical Service. There are two majors on the Medical Service, and three on the Surgical Service, in charge of the various Sections under these Services. Majors are also in charge of the Dental Service, the Laboratory Service and the Roentgenologic Service. Twenty-two officers of the rank of captains and first lieutenants are therefore available for immediate supervision of patients on the various wards.

Functional Classification of the Professional Services

For the sake of this paper the various services may be classified from the standpoint of availability for other medical functions than their own as (1) fixed, or non-labile and (2) non-fixed or labile.* It will be generally agreed that of the "fixed services" the dental service is probably the most inflexible

*By the term non-labile or fixed, and labile, the writer means the relative availability for medical service other than the one to which the officer is assigned.

because of the specific nature of the dentist's training. The eye, ear, nose and throat service would probably be next in order of inflexibility. Officers assigned to these services would rarely ever be available for care of patients with medical or surgical conditions on other services, except perhaps in extreme emergencies.

This same designation of "fixed"function might also be applied to the chiefs of the Medical and Surgical Services, as well as the officers in charge of the various special sections. It is to be assumed that officers given the professional as well as the administrative responsibility have advanced to a stage where they have become highly specialized in their medical service. This

must be so if such officers are to render efficient professional service in a hospital. In this plan, therefore, officers on the professional services, the ranks of major and above, would have the special duty of consultants and surgical specialists in such emergent situations. At the same time this specificity of their training makes them less valuable and less available for emergency service in other fields. This leaves the available officers for ward service or for special duty on the various services reduced to sixteen officers, three captains and three lieutenants on the Medical Service and five captains and five lieutenants on the Surgical Service.

Shift of Personnel in Emergent Situations
The Unit System

On the basis of the above figures one can diagram the relative availability for emergency duty of the various officers on the professional services in the hospital (Fig. 1). Since it can be assumed that, excluding the officers assigned to the Dental and the Eye, Ear, Nose and Throat Services who would probably be responsible for approximately one hundred beds, there would be eight captains and eight first lieutenants, who would be responsible for the various services as far as the handling of patients on the wards was concerned. Because of the natural preponderance of surgical patients under war time conditions, the normal point of division would be to the left of the center of the figure.

On this basis a captain and a first lieutenant would be responsible for the care of one hundred patients. These units of one hundred beds may be distributed among the various professional services. Interpreting the word "unit" to mean a series of words containing one hundred beds it would then mean approximately eight hundred beds would be under the charge of the medical and surgical services in the ratio of three to five. One hundred beds or the ninth available unit would be left in reserve to be absorbed by the Medical or Surgical Service as the occasion demanded.

Plan of Function of the Unit System

In time of an epidemic (as during the winter) when casualities from battle wounds would likely be very much reduced, only three of the units could be assigned to the Surgical Services and five to the Medical Services. This would mean a shift of medical service toward the right and in consequence two of the captains and two of the first lieutenants, together with the units under their charge, would be transferred to the Medical Service, placing them under the command of the Chief of this Service for administrative and professional control.

On the other hand, in time of active combat, the medical cases are likely to be reduced in number. In such a situation, the shift would be toward the left, and perhaps two of the three medical units would be assigned to the Surgical Service and the officers in charge of these units would then come under the command of the Chief of the Surgical Service.

Several other important details are to be considered in this plan for shifting of medical and surgical personnel. In this regard it would be necessary to plan for the care of infectious versus noninfectious diseases, particularly those disease due to the streptococcus, such as scarlet fever and erysipelas, which cases should be isolated at as great a distance as possible from the surgical units to avoid spread of these diseases to these units. Moreover, it would probably be advisable to establish certain units for the care of cases with wounds infected by gas bacillus and tetanus. Units assigned to septic surgery would also be separated as far as possible from other units with patients having open wounds.

Another important detail which must be considered is the provision for rapid and yet adequate training of nursing and enlisted personnel on those wards which would most likely be involved in any shift between the Medical or Surgical Services. These provisional wards should be manned necessarily by intelligent personnel, who should have the rudiments of training for the additional type of service which they might have to render. Moreover, the Chiefs of the Medical and Surgical Services should be prepared to provide specific instruction to such personnel for the care of patients on these services which might expand temporarily to the wards belonging to the other service. Such emergency orders or regulations should be ready for issue when it becomes evident that an emergency exists. If possible, they should actually be published and available ahead of the actual occupation of these additional wards so that there be a minimum of delay in the proper institution of therapeutic measures for the care of the sick or wounded assigned to these emergency units.

In order for the plan to be a success it will be necessary for the Chiefs of the Medical and Surgical Services together with the Executive Officer to work out the details of such a program as soon as the hospital is well established. The provisional wards should likewise be selected, as well as the personnel in charge of them. This pre-selection of officers and units in the plan will make for a regular and orderly transfer of personnel and equipment from the Medical to the Surgical Service, and visa versa, when the occasion demands.

In this way a general hospital can be adequately prepared to handle the medical situation under variable conditions. In time of peace it might be well for Reserve Hospital units as have attained adequate organization to make a survey of the situation and work out tentative problems suggesting various medical situations. Only by such attention to the possible function of a medical unit can it be said that such a unit is adequately trained and prepared for its war time function.

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SUMMARY

1. A general hospital is an Army medical unit and as such must be prepared to render adequate hospital service, whether the situation call for a preponderance of either medical or surgical service.

2. In order to successfully accomplish its mission in this regard for the adequate care of many medical cases in an epidemic or many surgical cases resulting from offensive operations, it is necessary to have a plan for the ebb and flow of personnel, equipment and beds between the Medical and Surgical Services. In this paper, such a plan is proposed. It is based on the assignment of properly qualified captains and first lieutenants to units which may be alternately under the control of either the Medical or Surgical Services as the situation demands. The working out of the plan is the responsibility of the Executive Officer and the Chiefs of the Medical and Surgical Services.

3. The available beds are grouped into units of approximately 100 beds (or divisions of one hundred. One unit is assigned to the Eye, Ear, Nose and Throat and Dental Services (facial and maxillofacial cases), three units are assigned to the Medical Service (for its various sections) and five units to the Surgical Service (for its various sections). It is understood that this division is approximate and that these units will be broken down into large or small wards or rooms as the local hospital situation demands.

4. The "provisional" units or wards should be so situated in the hospital plan so as not to disturb certain basic services, which, because of the nature of the cases treated (contagious and psychiatric cases, septic surgery cases) or the nature of the service rendered (orthopedic, Eye, Ear, Nose and Throat, Dental and specialty surgery such as of the nervous system and chest), should be permanently established. These provisional wards would best be established in the central portion of the hospital plant where the ebb and flow could take place naturally and easily.

5. The officer, nurse and enlisted personnel on these "provisional" wards should be selected for their intelligence and ability to adapt themselves to changing situations.

6. The training program of the hospital should provide for the variable training of the personnel of these provisional" units so that they would be at least partially prepared for emergent as well as routine duties.

7. A scheduled plan for shift of officer personnel to the "right" (expansion of the Medical Service) or to the "left" (expansion of the Surgical Service) will avoid much misunderstanding and consequent loss of morale.

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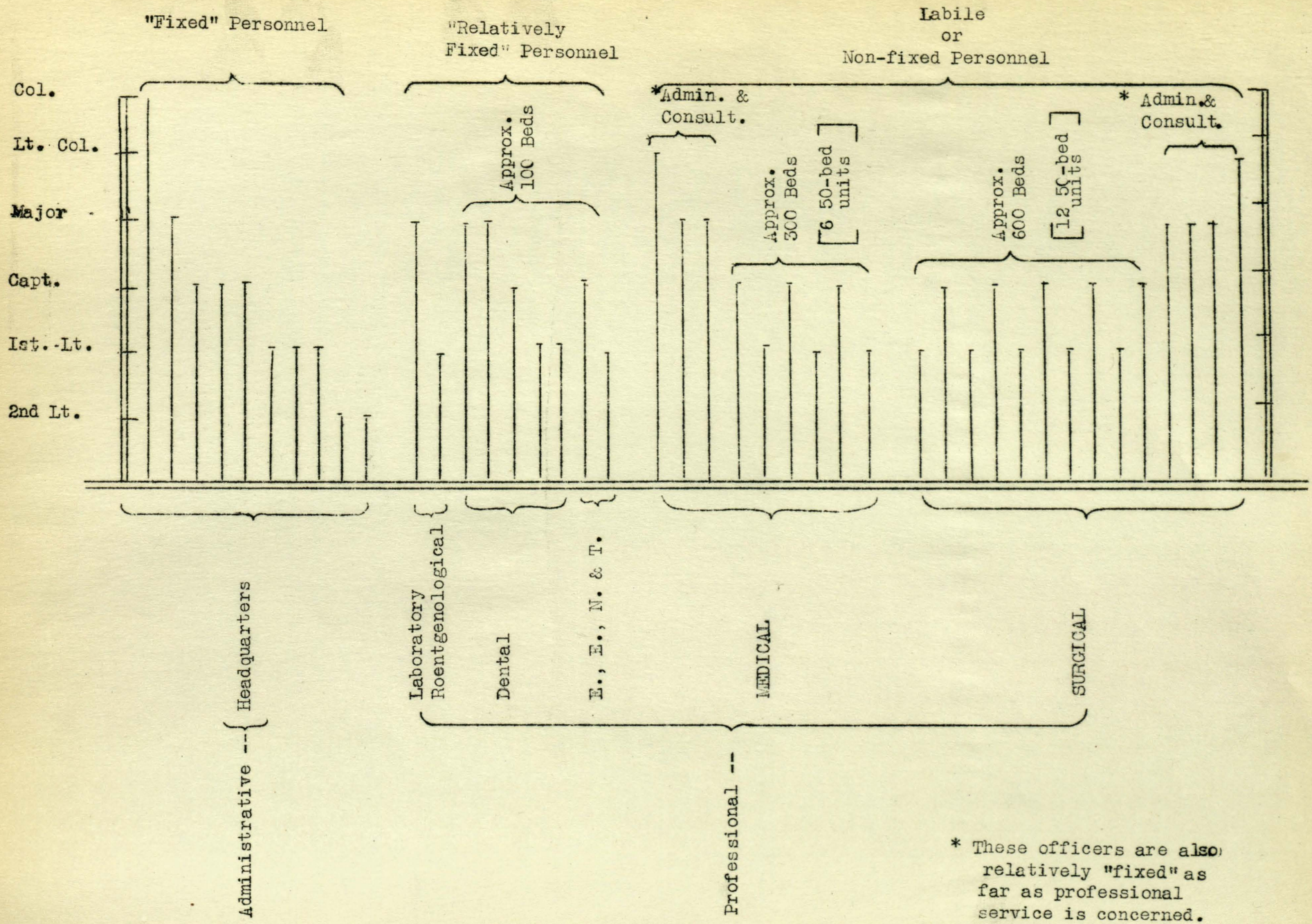

* These officers are also relatively "fixed" as far as professional service is concerned.