Original Communications

A LITTLE SURPRISE PACKET

BY

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As an introduction I ask of my reader only two things:

1. Preserve an open mind no matter the degree of provocation.
2. Summon the energy to read to the end.

The subject of this article is

“CINDERELLA” (yes, “Cinderella”)

"Once upon a time there lived in the same house two sisters, the elder called Fanny, the younger Cinderella. Fanny was quite an attractive girl, a little past her prime perhaps, inclined to be extravagant, not very adaptable, and rather dependent on others. She was, moreover, a little on the large side and her dresses often did not fit, although by ‘cutting a bit off here and adding a bit on there’ she always managed to keep up appearances, particularly with the help of Cinderella. Cinderella, on the other hand, was just the right size and shape, and was, in addition, very adaptable indeed. It was she who did nearly all the difficult jobs in the house, but due to her being always employed in some menial capacity when visitors came, it was never realized that it was her efforts which really made the household function so smoothly. Indeed at times of crisis, she it was who did all the work, although she was so modest no one noticed it.

"Now there lived in the same kingdom a Prince who for various reasons was 'wife hunting.' The familiar story of how he found his bride need not be repeated. Sufficient to say that he was a difficult man to please, but knew a good
thing when he saw it. He married Cinderella, we married Fanny. Cinderella's other name was Miss Field Dressing Station and Fanny's other name was—yes, Miss Field Ambulance.

By now you probably got what I am driving at. Simply put it is as follows:

In my opinion, and I hope to substantiate it to your satisfaction with facts, the Field Ambulance, at least in its present form, is extravagant of men and material, and all its functions can be carried out more efficiently by the Field Dressing Station, with half the men and half the material.

This statement would seem, at first sight, extremely rash, until one analytically examines the known facts. We have always been led to assume that the Field Ambulance is adaptable, but is it in actual fact? We have indeed employed it in many roles, but I submit that any unit of comparable size with the same equipment could have done as well; and I propose to try to convince you that a Field Dressing Station can do much better.

Consider first the Field Ambulance as a whole. It is a large unit of 13 officers, 221 other ranks, 54 vehicles (excluding bicycles) and 6 trailers. It consists of a Headquarters, which provides the A.D.S., and a company, whose main function is the evacuation of casualties from the unit R.A.P. to the A.D.S.

The company holds 5 officers (1 non-medical), 91 other ranks, 23 vehicles (excluding bicycles) and 3 trailers. It is designed to be divided if necessary into three sections (each of which can form a C.C.P.) and a Headquarters, all four being able to operate independently. It has no wireless, and without going into fuller details of its employment, which can be found very adequately covered in Pamphlet No. 2, it can be stated that the deployment of all three sections is not encouraged, except under exceptional circumstances. Indeed, during the last war and even more recently in Korea, the company has tended to function as a unit forming what was formerly known as an A.D.S. This has been done because of the difficulty of control of scattered C.C.P.s., by the Company Commander (often to be found "like Rachel bewailing her lost children") and also for greater efficiency, with duties and personnel as far as possible on a "roster" basis, and with a "tactical reserve" always at hand. Whether one is prepared to argue one way or another, the fact remains that 4 medical officers, 1 non-medical officer, 91 other ranks, 13 load-carrying vehicles and 3 trailers (excluding ambulances and motor-cycles) are employed in the sole duty of evacuation of casualties. A great economy could therefore be effected if the company could be dispensed

* With the exception of airborne and amphibious operations and, of course, Arctic and Atomic Warfare, I have been fortunate enough during the war to have had experience with a Field Ambulance (and, for a short time, a Field Dressing Station) in the Desert, in Italy or in North-West Europe in all the roles discussed. As a Regimental Medical Officer with armoured and infantry units I had also the opportunity of studying the medical set-up from the "sharp end," but I do not pretend that my knowledge, although comprehensive, is by any means complete. For that reason I shall frequently refer you to the R.A.M.C. Training Pamphlet No. 2, the best authoritative work on the present field organization of the R.A.M.C. It is largely due to the analysis of the material therein, coupled with my own experience, that I have come to my present conclusions, and I maintain that although I may have gone into schism I have not broken away into heresy! I must, however, exonerate the authors of the pamphlet from all responsibility for any statements I may make or conclusions I may draw.
with altogether, and the evacuation of casualties from R.A.P. carried out by other and more economical methods.

Very recently the whole problem of the load-carrying vehicles in the section has come under review, and attempts have been made to reduce the number of "prime movers" by substituting 2-ton trailers. As was well brought out on medical exercise "Mushroom," this is completely unsatisfactory, and as a result the problem would seem at present almost insoluble. Each section must carry a minimum of equipment to render it capable of action in an independent role, and this equipment must be carried in vehicles, which, it is almost certain, will not be available. One solution suggested, that of a radical reduction in equipment, will not only destroy the working efficiency of the section, but will virtually reduce the C.C.P. to a rather elaborate car post, in which case the question may very well be asked, "Why waste a medical officer with such a unit, and why carry around so much equipment?" Pursuing this line of reasoning, one may logically ask whether a C.C.P. or section (whichever way it may be considered) is a necessity. I propose to demonstrate that it is not.

On various occasions in the past it has been suggested that medical personnel should be posted to units as stretcher-bearers, and it should be remembered that there are now, for example, 1 sergeant and 4 corporals R.A.M.C. on the Higher Establishment of an infantry battalion, but the stretcher-bearers of a combatant unit will always remain a problem both as regards quantity and quality. If, however, we post sufficient R.A.M.C. personnel to the unit (and this is, in general, well favoured by combatant officers), the advantages of such a system are as follows:

1. The R.M.O. has a trained and adequate body of men, of his own Corps, always at hand for all medical duties in the unit, including, if necessary, the carriage of medical equipment when other means of transport cannot be used.

2. The Officer Commanding has no longer the worry of finding stretcher-bearers from combatant personnel, nor the R.M.O. the heart-breaking job of trying to train them. There are, moreover, large numbers of R.A.M.C. personnel incapable of ever becoming satisfactory nursing orderlies who would make excellent stretcher-bearers.

3. The addition of these extra personnel entails no increase in the administrative load of the unit, very little, if any, increase in transport, and, what is more, the skeleton framework already exists in the form of the 5 N.C.Os., R.A.M.C., referred to above.

4. The incorporation of medical personnel in a unit results in higher morale and efficiency both of the unit and the personnel attached. Our American cousins will vouch for that.

5. The C.C.P. is rendered unnecessary since all its functions can now be carried out by the unit R.A.M.C. personnel. Pamphlet No. 2 is quite clear on this point when it states that "if it is possible to evacuate direct from R.A.P. to A.D.S. the establishment of a C.C.P. is unnecessary and should be avoided."

If then the C.C.Ps. are rendered unnecessary by such an arrangement, the raison d'être of the company has vanished.
Now to come to the A.D.S. The first point that should be noted is that, with the company deployed, only 2, or if we include the H.Q. Section, 3 medical officers out of the total of 8 in the Field Ambulance are available for the treatment of casualties. This is, I submit, an inefficient employment of valuable medical manpower. This point has long been appreciated and it is, therefore, recommended that a Field Ambulance should function whenever possible as one medical unit. This is a tacit admission that the present layout is an expedient forced upon us by the exigencies of the situation, and the extreme modifications introduced as a result of the Hood Committee Report bear this out.

The second point which may be considered is Equipment. It is stated that the A.D.S. can hold and treat 150 casualties. With present tentage and equipment, I should say that this is an extremely optimistic figure. It must be remembered that a very sizeable proportion of medical equipment is with the company, and in actual fact the Field Dressing Station carries far more medical equipment than an A.D.S. and is far better equipped all round.

The third point is the question of Tactical Employment. The A.D.S. is a large and unwieldy unit which cannot be split. The best it can do is to detach its H.Q. Section, which in itself is no better equipped to treat cases than are the sections of the company. Moreover in treatment personnel the Field Dressing Station is actually far better off, and in addition can be split, if so desired, into two identical sections. This point will be further considered later.

It might here conceivably be argued that the Field Ambulance has already proved its worth. The facts, however, show that if the Field Ambulance is required to function under special or unusual conditions, where a formation may have to rely entirely on its own medical resources, an Advanced Surgical Centre is invariably attached. This is nothing more than a Field Dressing Station with a surgical component. It happens, therefore, that when such an operation is completely successful from the medical standpoint, much of the credit for the work, in reality done by a Field Dressing Station, goes to the Field Ambulance.

So far nothing has been said about the function of the Field Ambulance in special roles—e.g., airborne and amphibious operations. I admit that I have no personal experience of the medical side of either, and therefore I must refer my readers to the excellent résumé contained in Pamphlet No. 2 under “Airborne Operations and Assault Landings.”

First let us take the Airborne Field Ambulance. All the disadvantages of weight and size apply to an even greater degree here, and in reality the company per se has been dispensed with, the sections being attached to and coming under command of battalions. In addition, the other objections raised above apply to a still greater extent in a situation where there may well be large numbers of casualties in a restricted area, and where it is essential, at least in the initial stages, to concentrate more on treatment than on evacuation. It is unnecessary to discuss this matter in further detail, but the significance of the comparative weights of equipment carried by a Field Ambulance and a Field Dressing Station will, I think, strike my airborne readers especially forcibly.
Amphibious Operations

These also will not be considered in detail. The accepted layout shows that a Beach Medical Unit as well as an Advanced Surgical Centre is required to help the Field Ambulance, whose vehicles provide an even greater problem in transportation than those of the Airborne Field Ambulance whose “tail” rejoins it later by road. In contrast, comparison of the vehicle figures of the Field Ambulance and the Field Dressing Station demonstrates even more forcibly the advantages possessed by the latter.

<table>
<thead>
<tr>
<th>Medical equipment dead weight (tons)</th>
<th>Field Ambulance</th>
<th>Field Dressing Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1098 equipment dead weight (tons)</td>
<td>1½</td>
<td>1*</td>
</tr>
<tr>
<td>Total (tons)</td>
<td>11½</td>
<td>5</td>
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</tbody>
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Atomic warfare, aid to the civilian population after heavy air attack, etc., have not up to now been discussed, and these problems will be considered in relation to the Field Dressing Station in its new role, but I suggest that I have already submitted enough material justifiably to summarize my conclusions as follows:

1. The Field Ambulance is not as adaptable as is generally supposed, and owing to its size presents a very big problem in very mobile airborne or amphibious operations.
2. It is extravagant of vehicles, personnel and, in consequence, equipment.
3. The A.D.S. is not an efficient treatment unit and almost invariably needs the help of a Field Dressing Station or other medical unit, when acting in a special role.
4. The company of the Field Ambulance is an unnecessary waste of valuable personnel and material when its function can be carried out more efficiently and more economically by attaching sufficient R.A.M.C. personnel to units.‡

Before considering the Field Dressing Station in its proposed new role, it might first be as well to clarify certain points.

(i) It is taken that the layout forward of the Field Dressing Station is as

* Note the very high weight ratio between the I1248 and G1098.
† Note that up to the present no attempt has been made to reduce still further the number of vehicles in a Field Dressing Station (see para. (ii) below).
‡ There is at present no special qualification of “stretcher-bearer” in the R.A.M.C. except in respect of non-medical officers. Many G.D.Os. in wartime, and even in peace, found eking out a “bloody-minded” existence in a hospital, a base or even field unit, could be transformed by a medical training well within their mental limits and a job of which they could be justly very proud, the flash “Stretcher-Bearer” on their shoulders giving them a sense of superiority instead of one of inferiority among their, perhaps mentally better equipped, comrades.
A Little Surprise Packet

PROPOSED TACTICAL EMPLOYMENT OF F.D.S.
(DIAGRAMMATIC)

= F.D.S. (closed)
= F.D.S. (mobile)
= F.D.S. (open) Two sects & H.Q.
= F.D.S. (One sect & H.Q.)

(A) = F.D.S. one sect only

1. Division deployed in line

2. Divisional defended area or "Bastion"

3. Advance of Armd. Bde. Group
   Stage (1) Advance to contact
   Stage (II) Deployment for major attack
   Stage (III) Resumption of advance

4. Wide river barrier or water obstacle

5. Amphibious operations Assault landing
   Stage (I)
   Stage (II)
   Stage (III)

6. Entrenched dispersal A-B warfare

C.E.P. = Cas. Embark. Pt.
visualized above, i.e., R.A.M.C. personnel attached to units; although, in any case, it is not conceded that the F.D.S. could not work in the absence of this arrangement. Medical personnel could, if necessary, be detached from the F.D.S., but such a practice is to be condemned except under most exceptional circumstances and in grave emergency. It is, however, once more brought to your notice that the F.D.S. can be divided into identical sections, should such deployment become necessary. This is to be avoided whenever possible, but in certain cases, which will be dealt with in detail below, such an arrangement is both possible and even desirable.

(ii) I have taken the F.D.S. as it actually stands both as regards personnel and material. So far the Field Dressing Station has never been considered as a possible substitute for the Advanced Dressing Station. The process of modification need be only minimal, but should it be necessary, it is easy to reduce still further the number of vehicles, e.g., one of the water trucks at least can be replaced by a water trailer. However, as my reader will appreciate, it would be a waste of time to get involved in a mass of details at this early stage. This work is very much one for a committee of specialists of the various branches involved.

Now consider the F.D.S. in the new role. Even at present it is probably the most adaptable unit in the army, and can be used—

(a) for the treatment of minor sick or special cases (psychiatric, venereal, etc.) in the Division or Corps;

(b) as a filter to a Casualty Clearing Station;

(c) as an Advanced Surgical Centre;

(d) as an Air Evacuation Unit, etc.

"The sections may operate together, separately or be used for 'leap-frogging.' . . . In special circumstances the F.D.S. may be employed in the divisional evacuation plan.” (Pamphlet No. 2, paras. 156 and 157.)

Let us now go one step further and see whether the F.D.S. cannot function in the place of the Field Ambulance.

1. The Field Dressing Station is a unit of 7 officers (5 medical officers, 1 non-medical officer and 1 quartermaster), 115 other ranks, 21 vehicles and 2 trailers. It carries a very good "layout" of canvas, which is best appreciated by reference to the Pamphlet, Appendix 3b. I think it will be agreed that the Advanced Dressing Station (Appendix 3a) comes off a very poor second!

2. It is designed to hold 100 patients, 40 on beds and 60 on stretchers, and is fully equipped to treat them.

3. All the medical officers are, if necessary, available for treating cases (the non-medical officer being available for administration, which is of course much less than in a Field Ambulance.) By addition of a surgical team we have a field hospital more compact, more mobile, and in every way more suitable than the A.D.S., and we can if necessary divide the F.D.S. into two identical sections, each of which can form a small field dressing station.

4. In buildings the superiority of the F.D.S. with its much smaller administrative and much larger medical element (5 medical officers and 28 nursing order-
lies as opposed to the 2 available M.O.s and 13 nursing orderlies of a Field Ambulance A.D.S.) is even more clearly demonstrated.

If we now give the F.D.S. 8 ambulance cars (the same number as the A.D.S.), the over-all saving by the replacement of the three Field Ambulances in a Division by three Field Dressing Stations is as follows: 18 officers, 318 other ranks, 62 vehicles, including 24 ambulance cars, and 17½ tons of equipment on present establishment. (Dental officers are included in the above total, but their attachment to a Field Ambulance is a debatable point. In any case the addition of a Dental Unit to the F.D.S. provides no special problem.)

Administration (General).—From the administrative point of view these small self-contained standardized units very nearly approach the ideal, but the Commanding Officer of such a unit, in view of its multiple potential roles, would still have to be a lieutenant-colonel. It most certainly would not be the job for a junior major.

Employment in Army and Base Areas

One F.D.S. is capable of running at least two 100-bed Medical Reception Stations, providing the "medical cover" for a Convalescent Depot, or a series of Medical Centres, though the medical equipment in the latter case might have to be slightly supplemented. The centralized medical and administrative organization would, however, still be there, thus saving the A.D.M.S. from the unnecessary, petty, but often infuriating difficulties always associated with small isolated medical installations of this type, besides providing him with a unit for a local emergency.

Employment in the Division.

The Tactical Role.—It is proposed that the three Field Ambulances of the Infantry Division be replaced by three F.D.Ss. The A.D.M.S. then has three identical units which he can use in any way he pleases. He can attach them to brigades, replace and rest any of the units, use any of them as Advanced Surgical Centres with the simple addition of a Field Surgical Team, or maintain a mobile reserve of one or even two F.D.Ss., if he so desires (Diagram 1). The control of these units is infinitely easier than that of Field Ambulances even should they not be in wireless communication, and the fact that each brigade or division has a limited number of medical units does away with all the difficulties of the deployment of Casualty Collecting Posts, small units without wireless and only in contact by D.R. In addition the problem of the supply of medical equipment, rations, P.O.L., etc., are much simplified by having only one unit instead of the minimum of two (and sometimes five when the company of a Field Ambulance is fully deployed).

In Defence.—In "Divisional Defended Areas," with the addition only of the two Field Surgical Teams normally allocated, the A.D.M.S. would have a compact and complete medical "set-up" which he could not have had before. With the two F.S.T's. attached, two F.D.Ss. have the treatment and holding capacity of a Casualty Clearing Station, while the third could be held as a
reserve, used as a casualty evacuation unit to the other two, or even supply two smaller evacuation units by being divided into sections (Diagram 2).

The Armoured Division.—This can be equipped with two F.D.S.s. instead of two Field Ambulances, making, with the Divisional F.D.S. normally allotted, three in all. Their mobility and small size make these medical units a great asset (as opposed to a "necessary evil"), able to deal with the difficult and unexpected situations often met with in this type of warfare. For example, by dividing one F.D.S. into its sections, one deployed at the start-line and one travelling with the column, and by "leap-frogging" the sections, a Mobile Brigade Group could have continuous and efficient "medical cover," no matter how fast the advance (Diagram 3). That is not possible with the present Field Ambulance with its sections deployed, Company H.Q. in one place, Field Ambulance H.Q. in another, and the practice of attaching companies to brigades while retaining the A.D.S. under divisional command is an invidious compromise which can and does lead to all sorts of complications.

In Retreat.—The F.D.S. can again be divided, leaving only one section to accompany the rear brigade or "fighting echelon," the other being drawn back in advance of the main body. For such an operation one section would be adequate "medical cover," and of far more use than one section or even the whole company of a Field Ambulance.

Airborne Operations

The "flying-in" of all medical personnel and a substantial portion of medical and ordnance equipment is quite possible, leaving only a minimum in the "ground-tail." The high percentage of medical personnel, the smaller total numbers and the great saving of weight as compared with a Field Ambulance, would make the F.D.S. a far more attractive proposition to "G" as well as "Medical," but to make a full comparison between it and the Field Ambulance in an airborne role would require a complete article written by one who had actual experience in this type of operation. I, therefore, must ask my airborne reader to examine the whole picture himself and draw his own conclusions, which could be interestingly summarized as answers to the following questions:

1. Is the present Field Ambulance completely satisfactory in an airborne role. If not, what modifications do you propose after consideration of the objections already raised against it in a ground role?

2. Do you think that the solution suggested, i.e., attachment to a unit of R.A.M.C. personnel in sufficient number and
   (a) the substitution of a F.D.S. for an Advanced Dressing Station a satisfactory one; or
   (b) do you think a modified form of F.D.S. would be better, taking into account the question of standardization, a factor of great importance both for Medical and A/Q generally.
AMPHIBIOUS OPERATIONS

Assault Landings (Diagram 5).—There would seem no reason why one F.D.S. should not provide the Beach Medical Unit. In the form of an Advanced Surgical Centre, it is the first real treatment unit ashore, and a second would provide far better "medical cover" than the A.D.M.S. of a Field Ambulance. As has already been pointed out, the addition of two Field Surgical Teams virtually produces the equivalent of a Casualty Clearing Station, and one which possesses, moreover, the invaluable quality of being fully mobile, which the C.C.S. most certainly does not.

River Crossings (Diagram 4).—The Field Dressing Station, in the case of a large river barrier, can be divided into its two sections, each of which has a substantial holding capacity in the event of a "hold-up" in the evacuation arrangements.

WAR IN UNDEVELOPED COUNTRIES

Long Lines of Evacuation.—In the event of war in primitive countries, long lines of evacuation by road may be the rule. Without going into details it can be seen that by dividing the F.D.S. into its sections (in case of shortage) and allowing a two-hour journey by ambulance car, i.e., 30-50 miles, a 50-patient convoy can be looked after for 60-100 miles by one F.D.S. with adequate facilities for rest under proper medical supervision.

ARCTIC WARFARE

This is a type of warfare which demands the smallest type of unit compatible with efficiency, and problems of transport assume a major importance.

Although casualties are usually few, the frequent and virulent weather changes demand that the medical unit be fully equipped to hold its casualties, if necessary, for days on end. The F.D.S. would seem to fulfil these requirements adequately, although naturally Arctic equipment would be used.

ATOMIC WARFARE

In the Field.—Although fortunately as yet we have had no practical experience of an atomic attack, we take it that here all medical units are of value as treatment units only. The F.D.S. with its relatively larger number of medical personnel, its compactness and its better equipment, must obviously be superior to a Field Ambulance. Moreover, in the likelihood of atomic attack, an A.D.M.S. can disperse all three F.D.Ss. into six units without very seriously affecting his medical "set-up," and if, as would appear likely, certain of these will themselves become casualties, he has the maximum number of identical reserves. (Diagram 6.)

Aid to Civil Authorities.—The compactness of the F.D.S. and its capability of being divided into two sections (open and closed alternately) would enable it to carry on more efficiently and for a longer period than a unit which does not possess this facility. Due to its size, moreover, more than one F.D.S. can fit into a small area. An A.D.M.S. Division, if he so wishes, has up to six treatment units to cope with an "incident," or he could, for example, supply three F.D.Ss. to staff adequately a hospital of at least 600 beds.
INCORPORATION IN THE EUROPEAN DEFENCE SYSTEM

This is one further point of importance to consider. Such a formation can easily be integrated into the Land Forces of any of the North Atlantic Treaty Powers, whether the unit of these forces is the Regiment, the Brigade Group, the Division or any other sub-formation, and this is of great importance when we realize that the successful defence of Europe depends to a very great extent upon uniformity of structure and function in the forces taking part. It can no longer be considered as being simply a problem of either "Static Defence" or "Defence in Depth" with local counter-attacks, and it is highly unlikely that our future foes will be so obliging as to present an ideal target for the atom-bomb with heavy concentrations in restricted areas prior to the launching of the initial assault. Rather with the picture of 1940 in mind (and it should be remembered that there are many former German officers employed on the Staff of the prospective enemy), it is to be expected that he will rely on extremely rapid and very deep armoured thrusts against which the atom-bomb will be useless unless we are content to make a holocaust of our own troops and turn the whole of Western Germany into a charnel-house. Even assuming that tactical atomic weapons are perfected, they will still be very difficult to use once our positions have been penetrated in depth, more especially if the enemy should use any atomic weapons he may have at his disposal against a “Defended area”, or “Bastion” formed in the case of envelopment. We must, therefore, visualize a defence based upon immediate and violent reactive armoured penetrations of the enemy front and its complete disintegration from the rear in depth, not of ten or twenty miles but perhaps up to 500 miles or more. “Held by the throat in the West, the Bear will be torn open on the plains of Eastern Germany, Poland and even the Ukraine.” These attacks will most probably be carried out by armoured formations of not more than regimental (two-battalion) strength, sufficiently small and mobile never to offer a satisfactory target for an atomic attack and yet sufficiently powerful to destroy the communications and base installations of an Army Group; and, if necessary, capable of tackling and destroying individual enemy armoured elements protecting convoys of “soft” vehicles. For such an operation the escorting medical cover must be as efficient and as small as possible, and the F.D.S. itself might have to be further “streamlined” or subdivided into sections.

Some of my readers may consider the above somewhat speculative, so I will end on a note perhaps more practical and certainly very topical.

Up to now I have said nothing about the Territorial Army, which, after all, provides nearly all the Field Ambulances. One cannot pretend that the formation or “maintenance in being” of a Territorial Field Ambulance is at present an easy task. Besides the difficulty of recruitment there is always the difficulty of the administration of a large unit without a Regular officer which falls on the shoulders of already overworked doctors, who, in spite of being about the hardest workers in the community, are still the most conscientious and consistent officers in the Territorial Army. It could, therefore, be a great advantage if the Field Ambulance were much reduced in size, and still retain its traditional
entiy, which can be done very simply by renaming these Field Dressing Stations "Field Ambulances," for they would perform the same functions and the term "Field Dressing Station" is, in any case, a misnomer. If we can, moreover, produce very nearly two Field Ambulances in the place of one, the conclusion, I submit, is obvious.

Finally, I should like to ask a question: We have employed "Cinderella" at one time or another for every job in the household. Are we quite certain she cannot run the whole house?

REFERENCES

Higher Establishment. Field Dressing Station 11/904/1.
Medical Equipment Field Ambulance A.F.I. 1248-4B.
Medical Equipment Field Dressing Station A.F.I. 1248-20.

STUDIES ON URINARY CARRIAGE OF ENTERIC GROUP ORGANISMS

IV.—THE TREATMENT OF CHRONIC URINARY CARRIERS

BY

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and

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The treatment of chronic enteric carriers is an important problem. Though numerous authors have reported the results of treating faecal enteric carriers and coliform infections of the urinary tract, accounts of the treatment of urinary enteric carriers are scanty. This may be because urinary carriers are, in general, less frequent than faecal carriers and show less tendency to become chronic. Vogelsang and Boe (1948) report that urinary enteric carriers can, in most cases, be successfully treated by urinary disinfectants. Anderson and Richards (1948) treated an Egyptian urinary carrier of Salm. typhi with sulphadiazine; organisms were absent from the urine during treatment but returned within twenty-four hours of withholding the drug. Moore and Rumball (1950) report the cure of urinary, but not faecal, excretion by a carrier of Salm. kottbus following a course of 25 g. of chloramphenicol. Kennedy and Millar (1951) describe the successful treatment of a urinary carrier of Salm. paratyphi B with chloramphenicol;