Clinical and other Notes.

DISINFESTATION IN THE GERMAN ARMY IN THE WAR.

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In order to give a clear idea of the way in which the Germans ran their delousing schemes, etc., it will be necessary to give first a brief outline of the ordinary medical arrangements for an army in the line.

Corresponding to our D.M.S. Army was the Armeearzt who had as a sanitary advisor some very well-known hygienist, as a rule. In the army were a number of corps each with a Korpsarzt corresponding to our D.D.M.S. Corps.

The Korpsarzt had attached to his staff a sanitary advisor who ran the whole of sanitation for the corps headquarters and the three or more divisions of which the corps were composed. Each division in turn had a Divisionsarzt corresponding to our A.D.M.S. division, but there was no sanitary advisor attached to his staff, nor were there any units corresponding to our sanitary sections attached to the divisions.

Each division consisted of three regiments, all of which were in the line together, and each regiment had four medical officers, one to each of the three battalions and one the senior regimental medical officer attached to the regimental headquarters.

Each of the four companies in a battalion had in the front line a medical non-commissioned officer and one or two medical orderlies who were responsible for the conveyance of the wounded to the battalion medical dug-out, where they were patched up, etc., by the battalion medical officer and his staff, which consisted of a medical non-commissioned officer and one or two medical orderlies. From the battalion dug-out in the third line the wounded were conveyed to the regimental dug-out, generally one to three kilometres behind the front line. Here the regimental medical officer had a staff of—a serjeant, a corporal, and several orderlies of the Medical Service and this apparently was neither an aid post nor an advanced dressing station but something in between the two. This dug-out was emptied periodically by motor ambulances belonging to the Sanitäts-Company which consisted of:

1 Commanding officer (major, non medical).
8 Medical officers.
1 Serjeant-major.
1 Serjeant.
18 Non-commissioned officers (corporals).
16 Lance-corporals, including 1 tailor, 3 bootmakers,
1 wheelwright, 2 blacksmiths, 2 cooks.
206 Men (orderlies).
1 Cyclist.

and was situated well behind the line, some ten kilometres or more. This was a divisional unit and collected from all the three regimental dug-outs. Only urgent operations were performed here and dressings renewed when necessary.
This unit corresponds to our field ambulance.

The cases from here were evacuated by train, or light railway to the two Feldlazaretts, which were situated twenty-five kilometres or more behind the line in a church or school, and were closely allied to our casualty clearing stations. Their personnel was not fixed but depended entirely on the number of beds, etc. From here the wounded were evacuated right back into Germany if serious cases, while if slight they were retained until fit and then returned to duty direct.

Under ordinary circumstances the divisions were relieved every fourteen days and then went back into billets in villages. In one of these was built for the division a bath and delousing apparatus, which was run by the town major's staff and he was responsible for its smooth running; the corps sanitary officer was responsible for all other arrangements, except the actual working, such as time tables for the baths and other similar external work.

The bathing and delousing were both done in the same building and appear to be far more simple than our methods (see plan).

Any convenient sized room already existing was used, or an entirely new place built depending upon the resources available. In the centre of this room was erected a hot air disinfecter. This was really a large wooden box with doors at each end; there were two or at most three rails across the roof on the under side which could be pulled out on either side when the doors were opened for loading and unloading purposes. The heating of both the bath water and the disinfecter came from the same fire; the disinfecter itself was heated by means of radiators on the superheated steam principle as a rule, but braziers were also used as in plan 2.

These baths were capable of dealing with varying numbers of men, depending on the size of the original room; a large one at Cambrai passed 3,000 men per diem and smaller ones were constructed to take one battalion a day.

The mode of working was as follows: 100 men, for example, would arrive at the entrance door and would file into the first room. Boots and valuables were first passed into the cloak-room and either put on small shelves or hung on hooks in "dolly bags." Each soldier was told what was the number of his ticket and then he stripped off every other garment. These were hung by himself under the supervision of one or two fatigue orderlies on a hanger much like those upon which coats are hung in wardrobes, only there was a hook at each end as in the figure. The jacket was hung on one side, trousers on the other, and the socks, shirt, etc., thrown over the centre portion. When the rails were fully loaded they were pushed home and the door of the disinfecter shut. The men then went into the bathroom, where there was an ample supply of water from sprays and which was also heated by radiators as also was the dressing-room at the far end.

The clothing was left in the disinfecter at a temperature of 100° C. dry heat for one hour. The door into the drying room was then opened, and each man received his own clothing, which he put on. He repeated his own number to the cloak room attendant, and obtained his boots and valuables and then walked out, having been completely disinfected. There was no means of disinfecting his blankets at the same place, so these went to the laundry which was usually quite close and were there ironed.

There were several other types of disinfecter worked on the hot air principle,
PLAN I.—COMBINED BATHROOM AND DELouser. (Scale ¼ inch = 1 foot.)

PLAN.

SECTION.

"A"—Rack for hanging clothes (6 feet long). This must be fixed so as to allow rack to be drawn out when the doors are open. A pulley attached to door head (inside) with wire running to rack would enable rack to be drawn out (same applies at other end).
PLAN II.—BATH HOUSE AND DELOUSING CHAMBERS.

Delousing chambers

Unserviceable clothing

New clothing

Clean clothing

Dirty clothing

Undressing room

Dressing room

Shower bath

Boiler Ho.

Boiler

Tank

Pump

Section A. B.

Iron sheet lining

Earth filling

Rail

Scale ½ inch = 1 foot.

Scale 1 inch = 1 foot.
but the type above was standardized as far as possible and towards the end of
the war practically no other types were being erected.

Further back from the line the clothes were baked for two hours at 80° C.
as this was found to give better results and was less likely to damage the cloth-
ing. The shorter time at 100° C. was found to be sufficiently efficacious nearer
the line, where speed in passing clothes through was essential.

In Germany itself hydrocyanic acid gas was experimentally used where vast
quantities of lousy clothing were returned for renovation and reissue. There
were a number of deaths among the orderlies working with this gas and its use
was prohibited anywhere in the line.

In Douai there was an experimental disinfectors worked with dry heat and
sulphur dioxide together, but this method was never in general use.

There were steam wagon disinfectors working on much the same principle
as the horse-drawn Thresh but these were not capable of dealing with sufficient
quantities of clothing for them to be very useful. The Sanitats Company often
had one, but as a rule all soiled hospital clothing went to the laundry for
disinfeciton.

As a prophylactic crude naphthalene was issued at first, but the men found
that it irritated the skin too much. A half and half mixture of powdered talc
and naphthalene was afterwards issued, but this was too strong and was never in
general use. Scabies was apparently not the cause of as great a sick wastage
as it was with us. Wards of scabies cases were opened in every Feldlazarett
when necessary and the treatment consisted of baths and an ointment of balsam
of Peru, styrax and a proprietary medicine called pernol were used later on
when the supplies of balsam of Peru gave out. In the last stages of the war
soft potassium soap was used only, as there were no other materials available.

Plan No. 2 speaks for itself. It is that of the bath house and disinfectors
built in the most modern barracks, but is hardly applicable to an army in the
field. The use of braziers was just as common in the type of disinfectors described
for an army in the field but was replaced by radiators, as being less liable to cause
a fire, whenever possible.

NOTES ON EARLY SCURVY.
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The following notes, which were circulated in the Mesopotamia Expeditionary
Force, were written in October, 1916, while I was in charge of a scurvy con-
valescent camp, as a guide to the diagnosis of early cases. They may now be of
general interest, as there have been a number of communications on the subject
published recently.

I.—SIGNS AND SYMPTOMS.

(1) Gums.—(a) In scurvy the condition commences as a soft swelling
sprouting up between the teeth. Later on at the apices of these, red "buds"
appear apparently pushing through the mucous membrane. Lastly, these
"buds" become "blossoms," like an opening rose. The "blossoms" unite and