Clinical and other Notes

but this may be explained by the fact that they may have been put on to other work. The rule is that once the face and orbits have been affected by a dermatitis of the irritant or eczematous type, the patient becomes sensitized (anaphylaxis) to any fresh provocation from without; and at times from within too (disturbances of the alimentary tract, ptomaine intoxications, etc.).

In addition to the above cases I have had four patients (women) referred to me for a similar kind of irritant dermatitis (face and forearms) apparently due to the varnish or lubricant coating American fuses. These women had not been employed on explosive powders, but on these fuses only ("stripping" was the word used), so I take it there can be no doubt as to the origin I have mentioned. The dermatitis in them appeared in from three days to a fortnight after starting the work.

These cases did well on the same treatment, viz.:

R Lot. Glycer. plumbi subacet.
Lot. Calamine .. . .. åå
and an effervescing mixture of citrate of soda.

I am contributing this note in the hope that it may perhaps be found of some service.

A NOTE ON SOME CASES OF BLOOD INFECTION BY AN ANAEROBIC ORGANISM SECONDARY TO WOUNDS.

By Temporary Lieutenant Adrian Stokes.
Royal Army Medical Corps.

During the months of October, November, December and January, while doing bacteriological work in connexion with the clearing hospitals, a series of cases in wounded men occurred giving the same clinical and bacteriological picture. The clinical picture was characterized by four separate features: first the colour of the patient, which was a dirty yellow, something like the colour of a dirty deal table; secondly, the very soft running pulse, which was always very rapid, often uncountable, and in the later stages irregular; thirdly, uncontrollable vomiting; and fourthly, the very rapid onset of the condition after the injury. The presence of obvious gangrene at the site of the wound was inconstant. In three of the six cases reported it was present, in the remaining three it was absent. Death occurred in every case with great rapidity, forty-eight hours being the average time; one case survived eighty hours. The patient was always conscious to the end and in a state of "euphoria." It appeared probable from the great similarity of the symptoms and the invariable result in every case that there might be a common cause. The presence of the bacillus of malignant œdema was suggested as the probable explanation; an attempt to isolate the organism from the wounds having failed in two cases, it was thought that it might be found.
in the blood stream, and accordingly blood cultures were made in the series of cases reported. In six cases a culture was obtained by this method of an organism which was indistinguishable from the *Bacillus aerogenes capsulatus*. The blood cultures were made in three cases immediately after death from the hearts' blood, and in the three remaining cases the blood cultures were ante mortem. In two cases which died after a week in hospital of typical gas gangrene, the culture was negative; in one case ante mortem, and in the other case post mortem. The former case had been twice operated upon in attempting to stay the spread of the gangrene; in the latter case it was thought that the patient would not stand re-amputation. In this case the culture was ante mortem and gave a positive culture of *Staphylococcus aureus*. These two cases seem to make it probable that the series in which positive cultures of an anaerobic organism were obtained may be a separate and distinct condition. The number of cases in which it was possible to verify the diagnosis of blood infection by culture is small; on the other hand, there were no negative cultures in cases which were regarded as typical of the condition.

The six cases in which blood cultures were positive were as follows:—

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of cubic centimetres</th>
<th>Place</th>
<th>Hours of survival after wound</th>
<th>Time of blood culture</th>
<th>Projectile wound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pte. W.</td>
<td>4</td>
<td>Braisne</td>
<td>50</td>
<td>P.M.</td>
<td>Shell; compound, femur</td>
</tr>
<tr>
<td>, R.</td>
<td>4</td>
<td>Poperinghe</td>
<td>40</td>
<td>&quot;</td>
<td>Shell; compound, femur</td>
</tr>
<tr>
<td>, B.</td>
<td>4</td>
<td>&quot;</td>
<td>60</td>
<td>&quot;</td>
<td>Bullet; compound, humerus</td>
</tr>
<tr>
<td>Major B.</td>
<td>4</td>
<td>Lillers</td>
<td>48</td>
<td>A.M.</td>
<td>Shell; compound, humerus and femur</td>
</tr>
<tr>
<td>Lieut. C.M.</td>
<td>1</td>
<td>Bethune</td>
<td>80</td>
<td>&quot;</td>
<td>Bomb, arm; no fracture</td>
</tr>
<tr>
<td>Pte. L.</td>
<td>4</td>
<td>Lillers</td>
<td>40</td>
<td>&quot;</td>
<td>Shell; compound, femur</td>
</tr>
</tbody>
</table>

The technique adopted was the same in all the cases; shake cultures in glucose agar were made as soon as possible after the blood was taken, at the same time ordinary aerobic blood plates were made which in every case were negative at the end of forty-eight hours. In the shake cultures bubbles of gas were observed in all the cultures on the next day. In five of the positive cultures gas appeared with great rapidity; in two it was apparent in six hours, and in three it appeared in ten hours. The culture was profuse and the formation of gas abundant, the agar being forced to the top of the tube. Growth ceased within an inch of the surface of the medium and seemed most active about two inches from the surface. The organism was a Gram positive bacillus, most of the bacilli taking the Gram well, a few individuals losing the strain and a
few showing a beaded appearance. The bacilli varied a good deal in length, forms longer than anthrax being common, and forms as short as \( B. \text{coli} \) were found. It did not form spores in glucose agar and died out in one week in that medium. In one culture (Major B.) capsules were stained; in the others they were apparently present but it was not possible to stain the actual capsule. The colonies were dense and opaque, and on McLeod's plates made with blood glucose agar they showed a distinct hemolytic power. The organism is non-motile. It was possible by making use of the hemolysis to isolate the same microbe from two quite harmless wounds, one in the leg, the second in the thigh. One culture (Major B.) killed a guinea-pig in fifteen hours, the culture (Lieut. C. M.) made a pig very ill but it did not die; these were the only cultures injected into animals. There were a large number of cases presenting the same clinical picture in which it was not possible to do blood cultures to verify the diagnosis. From the very rapid onset of the symptoms it was probable that the infection of the blood stream is either at the time of injury or very soon after it.

A BRIEF ACCOUNT OF THE METHOD OF PROVIDING BATHS FOR THE BRITISH SOLDIER IN THE FIELD.

By Captain H. Norman Goode.
Royal Army Medical Corps.

CLEANLINESS, as is well known to those who have been in the trenches, is a matter of the greatest difficulty under the present conditions. Men have to remain in the trenches without any opportunity of washing or changing their clothes. In consequence, they get covered with lice, chiefly \( \text{pediculi vestimenti} \). These cause great irritation, and rob them of the few hours well-earned sleep when off duty. The lice inhabit chiefly the shirt, pants, and trousers, in which millions of eggs are laid in a very short space of time. To alleviate this, arrangements are now made throughout the British Army for the men to have baths and a change of underclothing as soon as they come out of the trenches.

The following is the method adopted by the —— Division:—

I will first give a description, together with a plan of the baths themselves, then the routine of bathing the men, and, lastly, the method I have devised, in conjunction with Captain Basil Hughes, of Bradford, for purifying and using the water over again an indefinite number of times.

As regards the building itself, a plan is subjoined. The canvas structure, with which I originally commenced, has now been replaced by a portable wooden building. This was kindly presented by the West Riding of York County Association through the instrumentality of Lord Scarborough and General Monds.