Current Literature.

Results of the Campaign against Typhoid. — Staff Surgeon v. Drigalski, Director of the Royal Bacteriological Institution at Saarbruck, discusses (Deutsche Militärärztliche Zeitschrift, Heft. 12, 1903) Kock's pamphlet on this subject. Koch has laid great stress upon (1) the enormous importance of contact-infection in the spread of typhoid, which very often occurs quite independently of the water supply; (2) the fact that the human body is the main breeding-ground and disseminator of the virus. After giving a sketch of his ten months' work at Saarbruck, v. Drigalski estimates the value of the Grüber-Widal reaction. This may simply indicate that the patient is, or has been, under the influence of infection. In the absence of clinical symptoms, it must give rise to suspicion; no inference can be drawn from its non-appearance. As a guide to the nature of the case, reliance can be placed, at least to a great extent, on the detection of the typhoid bacillus. Negative results of the bacteriological examination indicate absence of risk of infection by contact. Instances of this latter kind are often unrecognised, even by careful physicians. v. Drigalski next refers to the frequent occurrence of typhoid in certain houses and portions of cities, and to the idea that the organism may remain outside the human body in soil, manure heaps and the like. He thinks that another explanation has been furnished by definite pathological and epidemiological investigations. Bacilli, in small quantities, have been found in the mucous membrane of the rectum; abundantly in the ileum, and always in the duodenum; also abundantly in the gastric mucous membrane (the acid contents of the stomach contain no bacteria); in the oesophagus, in sections of the tonsils, in the parenchymatous organs, often in striated muscles, in the heart-muscle, in the uterus, upon film preparations of the lung (in the absence of pneumonia) and trachea. The condition, therefore, in typhoid is that of "bacteriemia." If further proof were necessary, it is supplied by the fact that the bacilli are found not only in the urine, but also in the sputum. Moreover, in cases of undoubted infection, we find angina, bronchitis, broncho-pneumonia, influenza, perityphlitis, gastritis, cholecystitis, and otitis media. The bacilli have likewise been demonstrated in the blood of healthy persons who had been in the company of typhoid patients. All these facts are sufficient to account for the existence of endemic foci and "typhoid houses," especially when (as is often the case) overcrowding and other conditions favourable to contact infection simultaneously exist. Infection by contact, i.e., from man to man, through the excreta (the endemic form) is therefore the most important way in which typhoid is disseminated; besides this, should the virus accidentally gain access to water or milk the disease will burst out, in the epidemic form, as an acute exacerbation of the endemic. It is therefore very important to search diligently for all latent or masked cases, to practise isolation and disinfection of the excreta for them as well as for the decided cases; and until the bacilli are no longer discoverable, to endeavour to prevent the spread of the disease from both classes of patients. T. P. Smith.
The Medical Service of the Japanese Army.—(Translated from the Bulletin du Service de Santé Militaire, No. 536, March, 1901.) At a time when the Russo-Japanese war had just commenced, Dr. Edward Laval conceived the happy thought of asking a personage, who occupies a high post in the Army of the Mikado, if he would be so good as to furnish him with detailed information regarding the Medical Service.

The Japanese military forces form a group of armies under the supreme command of the Mikado; these forces are divided into several armies, each of which is composed of a certain number of independent divisions, the invariable constitution of which is:

- 2 Infantry Brigades, 4 regiments.
- 1 Regiment of Cavalry.
- 1 Regiment of Artillery.
- 1 Battalion of Engineers.
- 1 Squadron of Transport.

The Medical Service is thus provided for:

- At headquarters by a medical officer of the rank of a general of division or brigade, from whom the whole medical service of the campaigning troops receives its orders;
- At the headquarters of each army by a medical officer of the rank of general of brigade;
- At the headquarters of each independent division by a medical officer of rank corresponding to that of principal of the 1st class of our (the French) army, the director of the medical service of the division, and by two medical officers of rank corresponding to our majors of the 1st or 2nd class;
- With each infantry regiment (about 3,000 men) by three medical officers, one per battalion, of whom two are majors and one an "aide-major";
- With each regiment of cavalry and artillery, by two medical officers;
- With each battalion of engineers and squadron of transport, by one medical officer, usually of the rank of major.

Every independent division possesses, besides, a medical establishment called groupe de santé, which contains: two medical companies composed of hospital attendants, each company being divisible into two sections. The medical service is represented by a principal doctor, the head of the groupe, and eight medical officers (majors or aide-majors) under his orders.

Together with this groupe de santé are the ambulances, variable in number (four to six per division). The personnel of an ambulance consists of a surgeon-major of the 1st class in charge, and six medical officers under him.

Each ambulance can provide for the treatment of about 200 wounded. The equipment, packed in boxes, is analogous to that used in European armies.

The field hospitals belong to the units of the 2nd line. They are under the immediate orders of the commander of the line of communications; their number is variable, as also is their composition. The strength of medical officers is for each hospital from eight to twelve; the medical officer in charge has the rank of surg.-major of the 1st class.

1 The "groupe de santé" is equivalent to the English Bearer Company; the "Ambulance" to the Field Hospital; and the "Field Hospital" to the Stationary Hospital.
At the Base we find, as in Europe, base-hospitals and hospital ships, of which a description has this year been given in No. 3 of Le Caducée.

It remains for us to add a few words as to the working of the service on the battle-field.

And first, we must recall the fact that each soldier carries a packet of dressing, of a triangular shape, containing materials analogous to those in use in the dressing packets of European armies.

During the fight the removal of the wounded is carried out by the hospital orderlies, and by the regimental stretcher-bearers (these latter partially furnished from the band) under the orders of the medical officers; this removal takes place under the fire of the enemy, during the fight. Our informant dwelt especially on this point, reminding us of the splendid conduct of our military confrères of Japan during the China campaign of 1895 (sic).

Under the fire of three ships and four torpedo-boats of the Chinese navy, which, at a distance of 300 to 400 metres, swept with a hurricane of shot a Japanese regiment exposed on the seashore, "the medical officers, followed by the stretcher-bearers and the hospital orderlies, set out one by one for the recovery of the wounded... They collected the dead and caused them to be carried to the rear, picked up and carried those shot but still living, and, at the end of twenty minutes, stretcher-bearers, hospital orderlies and medical officers retired coolly and quietly, carrying off all their dead and wounded, while the Chinese vessels maintained a terrible fire upon them...

Dressing stations are established at the locality held by the battalion-reserves. Mainly, the care of these stations falls upon the divisional groupe de santé, whose duty it is to form as many stations as may be necessary. But, inasmuch as a sudden action may cause the late arrival of the detachment of the groupe de santé, the regimental hospital orderlies, together with the medical officer of the regiment, establish this station provisionally. As soon as possible, however, equipment and personnel of the groupe de santé will come up and take the place of those of the regiments.

As soon as it is judged to be opportune by the divisional principal medical officer, one or more ambulances are installed and carry on their work until such time as they can be replaced by field hospitals. As these latter form part of the lines of communication, the divisional principal medical officer has to demand them from that service.

The equipment of the ambulances and field hospitals is very nearly the same as that of our (the French) ambulances and field hospitals. But the transport differs somewhat. As in the Farthest East the roads are universally bad, and as the regions where the theatre of war is displayed are very mountainous, the Japanese army does not use vehicular-transport for the wounded; the latter are all carried in litters.

Thus, when one comes to examine the Japanese medical service in the field, one finds it in its main features very much like the corresponding service of the present European armies. This fact is not surprising, since it is from Europe that the Japanese have recently drawn the bases of their actual development. It remains for us to watch the results of the actual working of this service which seems to be judiciously organised.

BRUCE SKINNER.

1 Nimier and Laval, "Le traitement des blessures de guerre," p. 75. (Alcan, 1901.)