slight degree of ptyalism was present, and there was still difficulty in carrying out fine movements with his hands. According to one of his officers who had known patient for five months, this facial expression had not altered, but the patient's wife informed us that about six months prior to his admission to hospital he gradually began to take no obvious interest in his family or affairs, and that he gradually cultivated the habit of sitting in a chair staring somewhat vacantly into space. It is of interest to note that patient has five children; the three older children are healthy but the two youngest, who are twins, closely resemble congenital syphilitics. It is considered that the patient had probably a very slight degree of cerebral syphilis prior to his admission to hospital. He had now been transferred to England for further treatment.

Finally, we should like to call attention to the article by L. T. Le Wald (Radiology, Feb., 1926, p. 138) in which he maintains that a radiological examination affords the best means of recognizing the existence of syphilis of the stomach, and that antisyphilitic treatment under radiological supervision should always be employed in cases where there is any doubt as to the diagnosis, or where malignancy is believed to be present and so advanced as to render operation impracticable.

In regard to the interpretation of this case both clinically and radiologically, we are open to correction, but if our deductions are correct the case is one of considerable interest.

[Note.—At the request of the authors we have referred this paper to Major McGrigor, X-ray Department, Q.A.M. Hospital, Millbank, for his opinion. Major McGrigor states that from his experience of cases of syphilis of the stomach he thinks the clinical and radiological deductions of the authors are correct.—Ed.]

NOTES ON THE SCHICK TEST AS CARRIED OUT AT THE DUKE OF YORK'S ROYAL MILITARY SCHOOL, DOVER.

By Major F. E. Roberts, D.S.O.
Royal Army Medical Corps.

And

Major F. CaseMENT, D.S.O.
Royal Army Medical Corps.

Owing to a small outbreak of diphtheria at the Duke of York's Royal Military School early in 1926 it was decided to carry out the Schick test on the boys of the Junior School, and it is thought that the technique and results may be of interest.

The Junior School consisted of ninety-one boys, of whom six were absent in hospital when the test was performed.
Clinical and other Notes

Technique of Test.

Schick capillary sets, consisting of toxin in a capillary tube, diluting fluid in a ten-cubic-centimetre bottle, and already diluted and heated toxin in a ten-cubic-centimetre bottle as a control were obtained from Messrs. Burroughs Wellcome and Co.

One cubic centimetre Agla all-glass syringes graduated in one-tenth of a cubic centimetre, with special very fine rustless steel needles; as recommended by Messrs. Burroughs Wellcome and Co., were used in carrying out the test.

Immediately before use the contents of the capillary tube were expelled, by means of a small rubber teat, into the bottle of diluting fluid and gently mixed, the resulting mixture giving a toxin strength of one-fiftieth of M.L.D. in 0.2 cubic centimetre.

After cleaning the skin of both forearms with surgical spirit, 0.2 cubic centimetre of the unheated diluted toxin was injected into the skin of the flexor aspect of the left arm and an equal amount of the heated diluted toxin into the skin of the flexor aspect of the right forearm.

It is essential that the injections be made between the layers of the skin, and the best method of ensuring this is to support the arm either on the thigh of the operator, who stands facing the patient with one foot resting on a chair or with the arm extended on a table.

The syringe is held almost parallel to the skin and the needle inserted with the aperture upwards. When the needle has penetrated between the layers of the skin, it is visible as a dark blue line, and if properly inserted, considerable resistance will be felt when the contents of the syringe are being injected. As the toxin is being injected a white, almost circular, area about the size of a threepenny-bit is seen spreading out between the layers of the skin.

If the needle is found to have penetrated below the skin it is best to raise the point of the needle and enter between the layers of the skin from below, instead of withdrawing and re-inserting the needle.

The needles were placed in absolute alcohol between injections and the alcohol allowed to dry off before use.

The tests were performed by two operators, one injecting the unheated, and one the heated toxin. Separate syringes and needles were used by each operator.

The results were read and recorded on the third and fourth day after injection.

Positive results consisted of a very definite area of redness surrounding the site of injection of the unheated toxin, the area varying in size between a shilling and a half crown.

This area remained quite distinct for at least fourteen days, becoming gradually of a dusky brown tint with scaling. The control arm showed no reaction.

Negative results showed either no reaction, or at most a very slight
Clinical and other Notes

redness at the site of injection, the redness having completely disappeared by the third day.

Pseudo reactions were classified as positive pseudo (susceptible) and negative pseudo (immune), the former showing a persistent red flush with the heated toxin, and a larger persistent red flush with the unheated toxin, while the latter showed a fainter non-persistent flush which was equal in both arms.

Of the eighty-five boys whose ages varied between 9 and 12 years, thirty-eight showed a definite positive reaction, four a positive pseudo, two a negative pseudo reaction, and forty-one were definitely negative.

Those showing a positive reaction were immunized by injections of 0·5, 0·75, and 1 cubic centimetre toxin-antitoxin mixture at weekly intervals.

With these doses no local or general reaction was observed.

THE INCUBATION PERIOD IN MALARIA.

By Major R. F. O'T. Dickinson, O.B.E.
Royal Army Medical Corps.

It is usually stated that about two weeks must elapse before a sufficient number of merozoites are thrown into the circulation to produce enough toxin to constitute an "attack of malaria."

Some authorities state the incubation period varies between seven days and several weeks.

My own experience has been in many cases which have paid only one visit to the coast, that it takes about twelve to fourteen days from the time of the bite of the mosquito till the time that symptoms develop.

There is no malaria at Vacoas Camp, Mauritius, for in every case of malaria during the last two years it has been possible to trace its connexion with Fort George which is on the coast, and where Anopheles costalis breed freely.

Qm.-Sjt. X., Royal Engineers, went down to the sea on an afternoon bathing picnic on Thursday, January 28. The party having bathed and enjoyed themselves thoroughly, started back at 6.30 p.m., which was an hour later than they had intended.

Exactly seven days later, February 5, he reported sick with a temperature which ran up to 105°F at 10 a.m. A blood-smear showed M.T. parasites, fine rings, and marginal forms.

As this N.C.O. could not have contracted the disease locally and had not left the camp for some weeks before the attack, there can be no doubt that the facts are as stated above. He had never had malaria before.

I venture to report the case as the incubation period in my own cases is nearly twice as long, and because as far as I know it is much shorter in this case than usual.