of shows for children to one hour, and the prohibition of "repeats." (6) The reservation of the children's seats to the "optimum" position in the hall.

With such provisions the indulgence in a show once a week should do no harm to the eyes of a normal child.

PUERPERAL FEVER TREATED BY VACCINE.

BY
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The following case may be of interest in connexion with that recorded by Dr. Grier in the *BRITISH MEDICAL JOURNAL* of September 30th, 1916, p. 454.

Mrs. H., a young primipara, was confined on March 27th. I had been called to see her three days earlier as she had an erythematous rash, without fever or other symptoms. It had almost vanished when she was confined, and there was no subsequent peeling. The head was at the vulva when I arrived, and I was told it had been there some time. The presentation was occipito-posterior unreduced. The child was born in half an hour, and there was a considerable tear of the perineum. The placenta was long in coming and was incomplete. While I was preparing to explore the uterus the patient, who was well and cheerful when the child was born, complained of faintness, and I found her pulseless. There was no marked external hæmorrhage, and the uterus was contracted, but she was pale and restless and had sighing respiration. For two hours I tried to rally her, with no success. As she then passed a large clot, I gave chloroform and removed the rest of the placenta, which was lying loose at the internal os; the uterus was then douched and pituitary extract was injected; saline was injected per rectum and afterwards into the axillae, but with no result, and I left her six hours after the birth of the child still practically pulseless. Twelve hours later she had rallied; she was warm, her pulse was 120, and the temperature normal. She had an angry blister, the size of half a crown, on the left buttock, three or four inches from the vagina, and stated that she had felt some discomfort there for several days. To this I attribute the fever which followed.

Next morning she felt better, but had a headache; the pulse was still 120, the temperature was 99°. In the evening the temperature was rising, and the perineal tear looked sloughy. Remembering the rapid and possibly inadequate exploration of the day before, I explored the uterus again after cauterizing the perineal tear with carbolic acid. I found nothing, but caused a rigor.

Next day, as the patient was obviously worse, Dr. Pearson of Bideford kindly saw her with me; he also found that the uterus was empty. I then injected antistreptococcic serum,

A = Rigor; temperature not taken. B = Consultation. C = Serum, 30 c.cm. D = Serum 20 c.cm. E = Cough; serum, 30 c.cm. F = Urticaria. G = V.E. swab from cervix H = Measly rash; delirious. I = Polyvalent vaccine; negative phase. J = sweating.

with excellent results as shown by the chart, for a few days; the pulse came down to about 100, and the patient was indomitably cheerful. She then developed a slight cough, the temperature began to rise in the evenings and presented a septic character. A few days later the morning temperature also gradually rose, and she developed an urticarial serum rash, ten days after the first injection of the serum, and on the thirteenth day of the illness. The cough continued, but all that I could find was slight diminution of entry of air and diminished resonance at the base of the right lung; the breathing was not quickened. The perineal tear was clean, there was a slight discharge from the cervix, but no smell; the blister was still angry and painful. Aspirin had been prescribed for a few days, and afterwards quinine, and a vaginal douche was given twice daily.

When the urticaria disappeared and the morning temperature remained high, it became evident that the latter was not a

serum phenomenon. Moreover the pulse began to rise above 100, and the patient lost her pluck. I was unwilling to put her to the expense of an autogenous vaccine, but I felt further delay would be dangerous. A swab was taken through a Fergusson's speculum, and this apparently caused a considerable increase in the fever. Three days later the Clinical Research Association reported that so far no virulent bacteria had developed.

On the twentieth day of the illness the patient developed a third rash which was measly in type and doubtless septic. In view of the negative bacterial report I tried to find an internal abscess, but failed, nor could Dr. Pearson discover anything of the kind. Next day the patient became delirious, and the Clinical Research Association reported that a few streptococci had developed and that they were sending a stock vaccine at once. The marvellous result of that stock vaccine, after a slight negative phase, is shown by the chart. The patient had a crisis and was well. The cough, never troublesome, cleared up. Only the obstinate sore on the buttock remained, and when the autogenous vaccine arrived and was injected that cleared up at once; evidently the vaccine was specific as regards the blister.

The patient, I think, must have had a low form of septic pneumonia, although the physical signs were never definite. A septic pneumonia does not usually end by crisis, but apparently the vaccine stimulated it to do so. The initial collapse was puzzling. In the absence of cyanosis and struggling for breath I hesitated to diagnose embolism of the lungs; perhaps there was some embolism of the heart, or a massive septic infection. There was a little more bleeding than usual, but not much. There were never any abdominal symptoms except slight tenderness over the uterus.

A CASE OF "TRENCH FEVER," CONTRACTED IN ENGLAND.

By R. D. MACGREGOR, B.A., M.B. OXON.,
CAPTAIN I.M.S. (RETIRED).

The case of "trench fever" here described is recorded because the patient has never been out of England, and has contracted the disease while in hospital in attendance upon cases of trench fever from France. As has been the case in a number of instances occurring abroad, the patient is an R.A.M.C. orderly.

Pte. A., R.A.M.C., has been employed for some months at this hospital as a ward orderly, and bears a good character. He is 54 years of age, and has had no serious illness except appendicitis, for which he was operated upon. He has never had rheumatism.

On August 30th, 1916, he had acute pain in his legs all night. For three days before this he had had some aching in the legs, but had carried on with his duties. On the morning of August 31st his legs were so acutely painful that he could not stand, and was brought to the hospital on a stretcher. The fronts of the legs were found to be very tender, the tenderness being most marked along the inner border of the tibiae. There was headache, and some tenderness and pain over the front of the thighs. The temperature in the evening was 100°; the next evening it was 101°, the symptoms continuing the same. On the fourth day the temperature came down to normal, and remained so thereafter, but there was little remission in the pain. He was not able to stand with ease until about the seventh day. In addition to the leg pains, headache was frequent, and pains began to be experienced in different parts of the body—transversely across the chest below the nipples, in the neighbourhood of the hips and of the shoulders. On November 5th there was pain, which he described as "cruel," in the left shin, but none in the right. There was pain also in the right shoulder. The pains were usually worse at night and in damp weather. Throughout the illness there were no pathological signs except the initial pyrexia.

CHART 1.—Pte. A.; "myalgic" type of trench fever (contracted in England).

The case is fairly typical of the "myalgic" type of trench fever. Trench fever, as so far described, has no completely uniform character, but presents a symptom-complex easily recognized and divisible into a number of well-marked types. McNee, Renshaw and Brunt,¹ and Hurst² have described a "long" and a "short" type of

trench fever. To these Houston and McCloy² have added the "myalgic" type, as well as a "septicaemic" type.

The case described above belongs to the "myalgic" type, which in general characters is very similar to the other types, but differs in having a short duration of pyrexia with a long duration of the pains. The myalgic type and the "long" trench fever type in this hospital

CHART 2.—Twelfth week of "long" type of trench fever.

differ only in the temperature chart, which in the first named shows only a few days' pyrexia, while in the second there is a course of low irregular pyrexia extending over many weeks, with occasional spikes rising a degree or two higher.

The "short" type of trench fever has not been seen in this hospital, possibly because such cases do not find their way over from France. The "septicaemic" type of Houston and McCloy has also not definitely been established here.

The various types merge into one another, showing the essential identity of the symptom-complex of trench fever. There is no catarrh nor definite joint pains, but a variety of exceptional symptoms may occasionally give rise to diagnoses of "gastralgia," "influenza," "rheumatism," etc.

The excessive duration of fever and pains in the "long" type and of pains alone in the "myalgic" type were at first a source of concern, because weeks went on without any end to the condition becoming apparent. The physical state of the patients seldom gave cause for anxiety, but no form of treatment appeared to effect a cure. The passage of time, however, has shown that the most obstinate case finally yields, though the longest case took as many as fifteen weeks to do so. There is a gradual amelioration of the pains, the malaise disappears, and the temperature gradually settles upon the normal line.

In the case of Private A., given above, the pain latterly occurred in the left shin only. This is exceptional, only one other case with this peculiarity having been seen, for the leg pains are in almost every instance bilateral.

REFERENCES.

¹ BRITISH MEDICAL JOURNAL, February 12th, 1916. ² *Lancet*, October 14th, 1916. ³ *Lancet*, October 7th, 1916.

NOTES ON SO-CALLED "TRENCH FEVER" AS SEEN IN ENGLAND.

BY

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THERE is much similarity between so-called "trench fever" and a short pyrexia which is prevalent at present among the troops in England.

The signs and symptoms of "trench fever" were described recently¹ in an able article by Captain J. Muir, R.A.M.C.(T.). On reading his remarks, the medical officers of this hospital said to themselves: "Here is a description which tallies almost exactly with the cases which we are admitting daily from a large camp here in England—cases which have not been overseas at all. Are we justified in calling our cases 'trench fever'?"

Between October 1st and December 31st, 1916, the number of cases admitted to our wards from the neigh-

bouring camp with a diagnosis on their sick reports of either influenza or pyrexia was 199.

Of those men who were under my care, all had, to a greater or less extent, symptoms associated with pyrexia from any cause, such as headache, pains throughout the body, and a general feeling of "rotteness." But (and this is what I wish to emphasize) many of them showed the two principal features which Captain Muir mentions as differentiating the cases from influenza—namely: "(1) The absence of any symptoms of catarrh in the respiratory tract (or elsewhere); and (2) the absence of all complications such as so commonly follow attacks of influenza."

The average temperature of the cases on admission was 102°. In nearly all it fell to normal within thirty-six, or at the most forty-eight hours. As Captain Muir points out in the overseas cases, the sooner a man is taken to hospital after the onset of the attack the sooner will his temperature fall. Here we are exceptionally fortunate in the facilities for rapid and comfortable transport.

Our cases showed no constant remission on the third or fourth day, though in some the temperature did not settle completely until a few days had passed. This is the only particular, and it is a very slight one, in which our cases show any difference from the cases recorded from overseas.

The cases which were investigated fully were taken from those which showed no catarrh of the respiratory tract (or elsewhere), so as to exclude from our survey those that might be diagnosed rightly as influenza.

Of the cases so investigated, nasal and pharyngeal swabs showed, in one case only, the presence of a large number of influenza bacilli. In the remainder we found many of the usual organisms associated with the nasopharynx (*M. catarrhalis*, pneumococcus, Friedländer's bacillus, Hoffmann's bacillus, etc.), but no organism was found to be present constantly in all the cases.

Most of the men showed a considerable leucocytosis at the beginning of the attack—from 18,000 to 21,000, or even higher, was not uncommon. Differential counts showed a constant tendency to increase in the polymorphonuclears. A usual feature was the continuance of leucocytosis for at least twenty-four hours after the temperature had fallen.

The pulse-rate showed great variability, and was not constantly increased, or diminished, in proportion to the temperature. There is nothing to remark with regard to the systolic or diastolic blood pressure, and the kidneys were unaffected.

My colleague, Captain Crawshaw, and myself tried three plans of treatment: (1) Keeping the patient in bed on a milk diet without medicine; (2) giving a dose of calomel; (3) treating with sodium salicylate every four hours. We do not think that recovery was hastened materially by any medicinal treatment.

As a rule the patient is allowed to get up when the temperature has been normal for twenty-four hours, and complications are unknown.

SUMMARY.

It seems, therefore, that in the training camps of England we have a disease which for all practical purposes is indistinguishable from the "trench fever" of the overseas troops. It occurs in men who have never been in the trenches, and who are not infected with lice. Captain Muir has laid stress on the fallacy of the term "trench fever." The army authorities, like the relations of a patient in private practice, wish for an exact diagnosis of every morbid condition, and it should be our business to see that the diagnosis is as accurate as is possible. In the present state of our knowledge (or ignorance) it seems to me that the term "short fever" is the most honest title to give to the condition to which I have referred in the above notes. It is quite as accurate as "scarlet fever"; neither term implies a knowledge of the causative agent. And if it rings the death-knell of the indiscriminate use of the word "influenza," it will have rendered a service to medicine.

I am much indebted to Miss Hubbard, of the hospital laboratory, for help in the preparation and examination of specimens.

REFERENCE.

¹ BRITISH MEDICAL JOURNAL, November 11th, 1916.