

tattooing the chest : or say that because a drug A cures a disease B, it will therefore cure diseases C. D. E : of course, it may so happen that one drug will cure more than one disease, but it is no argument to postulate that because it cures one disease, therefore it will cure all : were this the case, the study of medical science would be waste of time, for of what avail would be the laborious accumulation of knowledge of different diseases, their causes, signs and symptoms if one knew that one single method of treatment would cure them all.

This is what the purveyors of patent medicines and also the Christian Scientists say to gull an innocent public and to make their living—and often a very fat one at that—at their expense.

We are now in a position to take a critical survey of the theory and doctrines that Christian Scientists put forward and ask the world scientific and otherwise to accept.

I grant that they do in certain selected cases perform cures and relieve pain, but their cures only consist of the alleviation of symptoms and go no further towards curing actual disease—which, remember, cannot be diagnosed by them or the public but only by one who has been specially trained in medicine in all its branches of anatomy, physiology, pathology and bacteriology—than by placing the nervous system of the patient in a calm restful state: the means a medical man uses to the same ends is rest in bed and good nursing; the Christian Scientists' treatment ends there, the doctor's begins there.

Hence in certain illnesses,—not diseases in strict medical parlance—such for example as have been for years treated in the continental cliniques mentioned above, the Christian Scientists score successes: the accounts of such cases are passed along by the public from one to another and do not in the passage fail in the telling, and by the time they have reached the last person, they have risen from the status of a cure to that of a miracle.

What of their failures? Their recital does not appeal to the patient's friends and dies a sudden death. It is only occasionally that a death is obviously and directly from a legal point of view attributable to their treatment or I should say their lack of treatment: but one can remember such cases; a boy suffering from diphtheria and a man with a bed sore are instances of deaths at the hands of Christian Scientists from lack of medical treatment. I do not for one moment argue that medical science would have saved these lives, but I do say that their chances of recovery would have been much greater: everyone must agree with this statement unless he is of opinion that medical science and treatment founded on this knowledge is of no avail: such an argument would be as absurd as saying that the man in the street knows as much about chemistry as a chemist, or about astronomy as an astrologer, or about mathematics as a senior wrangler, or about law as a lawyer.

The history of Christian Science methods is on these lines:—Once by chance some person made the discovery that by concentrating his thoughts in prayer on a sufferer and aiding the sufferer to concentrate his thoughts also on the suggestion that because ———— therefore his pain had gone or was non-existent: I have left the premise of the syllogism blank and only put in the conclusion, for I do not propose to deal with the Christian Scientist theory. He found that in some cases after several such seances the patient was cured of his illness I have already stated the class of cases where this result obtains.

The psychological explanation is clear: the Christian Scientist and his patient both fulfil the necessary preliminary condition of faith and confidence: by concentration of thought, in this case by means of religious ideas, a partially subjective state is induced in both, more in the former than the latter: in this state their subjective minds are *en rapport* and the suggestion of cure is given and worked on: repeated seances

are necessary, because the hypnotic or subjective state is only partial, and hence the result of the suggestion not very potent.

This discovery was attributed to a power present in all if they acted in conformity with Christian Science methods, and under that condition only. It will be seen how incorrect is this: many methods may be used to produce this subjective state, any method in fact which provides for, first, the implicit faith and confidence in the operator, and second, the necessary concentration of mind: the methods have already been mentioned: they are by passes, by crystal-gazing and by the tiring of certain ocular muscles, by the laying on of hands, by prayer, by suggestion.

In short, Christian Scientists have stumbled on a psychological fact, but they have given to it an incorrect explanation—a fact one can afford to overlook: they do not, however, stop here but in their ignorance they attribute to it miraculous powers which it does not possess, and this spells disaster and death to many of the willing victims who are willing to sacrifice themselves on this altar of misapprehension and ignorance.

#### REPORT ON AN EPIDEMIC OF DENGUE CONSISTING OF BOTH A THREE- DAY AND SEVEN-DAY FEVER TYPE AMONG THE 15TH LANCERS AT SIALKOT, 1907.

By H. FOOKS,

LT.-COLONEL, I.M.S.

A SEVERE epidemic of Dengue occurred in the above Regiment at Sialkot, lasting from the 1st October to the 15th November.

It was especially interesting from the fact that it took the form of two distinct types, a three-day and a seven-day fever type. The epidemic may be divided into three periods. The first period lasted about ten days and consisted of cases of the ordinary three-day fever type; the second period of three weeks consisted for the most part of a very severe seven-day fever type; and the third or last period of about a fortnight, consisted of both the three-day and a mild form of the seven-day fever type.

#### THREE-DAY FEVER TYPE.

The three-day fever type, "so called because the primary fever only lasted three days" were typical cases of Dengue. The primary fever rapidly rose to 102° or 103° and lasted about three days; it was accompanied by an erythematous rash on the face and neck, frontal headache and severe pains in the lumbar region, and was followed by an intermission of fever from 3 to 4 days, and by the secondary fever on the seventh day. This secondary fever was ushered in by increased headache, but only rose to about 100° and was of very brief duration and extremely liable to be overlooked unless specially looked for.

#### THE SEVEN-DAY FEVER TYPE.

The symptoms of this type were much more severe and very constant and regular. The invasion was very sudden, the temperature

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## "THREE-DAY FEVER" TYPE OF DENGUE.

CHART I.

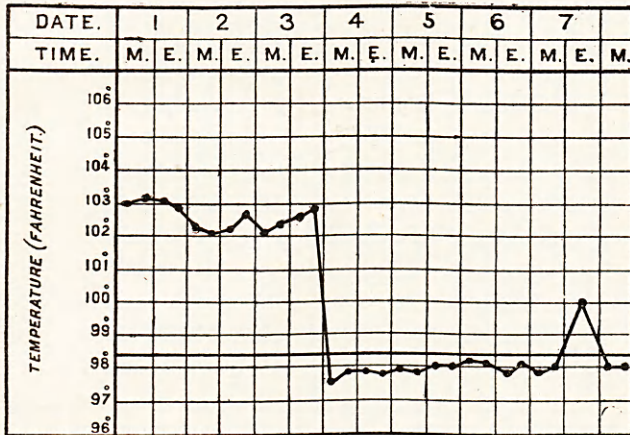


CHART II.

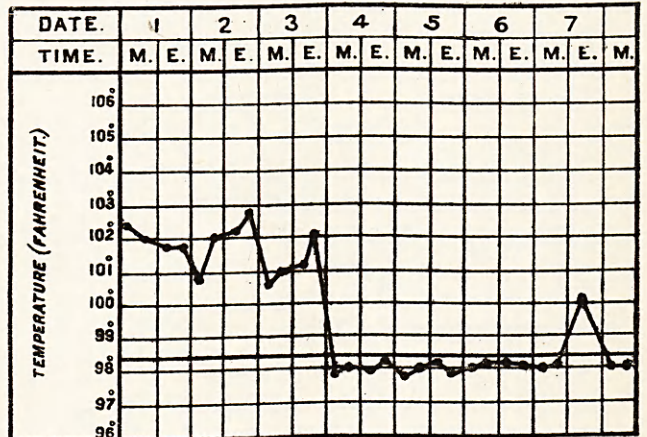


CHART III.

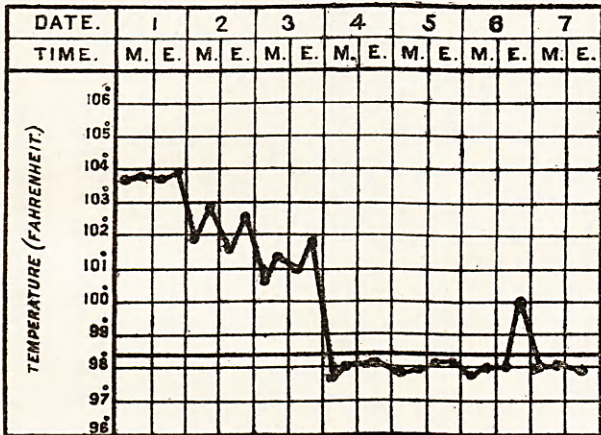


CHART IV.

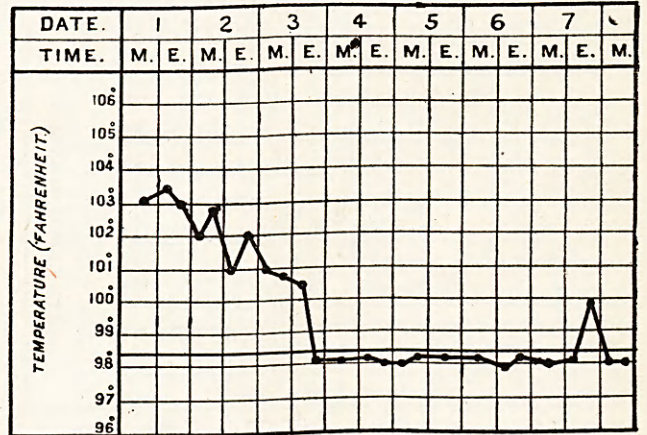


CHART V.

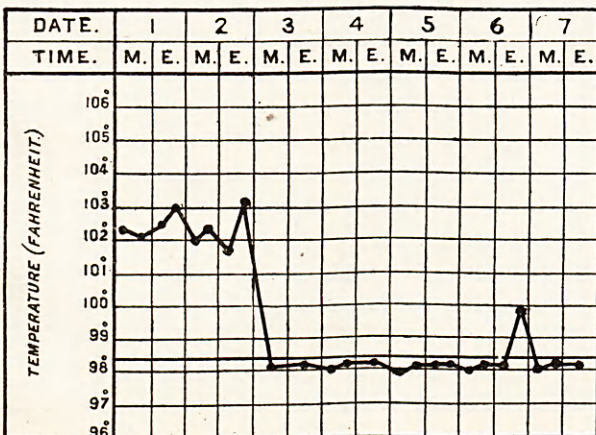
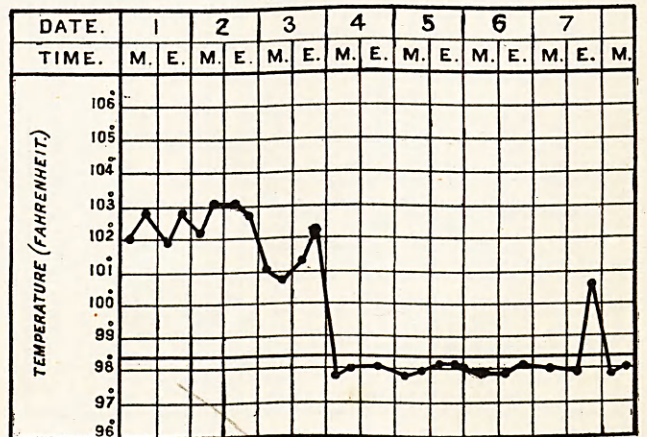


CHART VI.



# REPORT ON AN EPIDEMIC OF DENGUE CONSISTING OF BOTH A THREE-DAY AND SEVEN-DAY FEVER TYPE AMONG THE 15TH LANCERS AT SIALKOT, 1907.

BY LIEUT. COL. H. FOOKS, I.M.S.

## MILD "SEVEN-DAY FEVER" TYPE OF DENGUE.

CHART I.

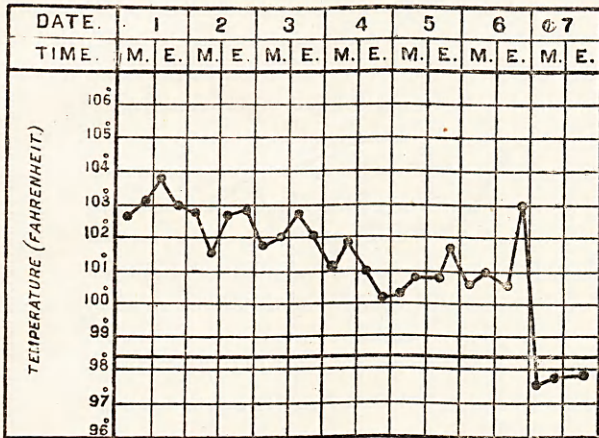


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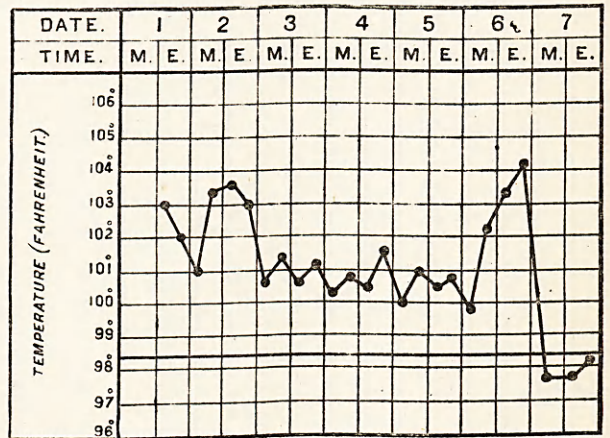


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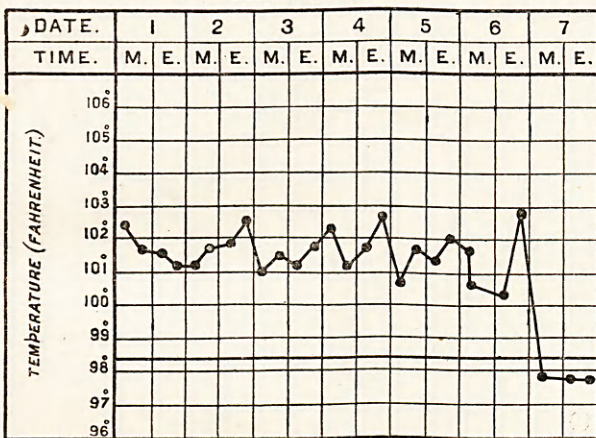


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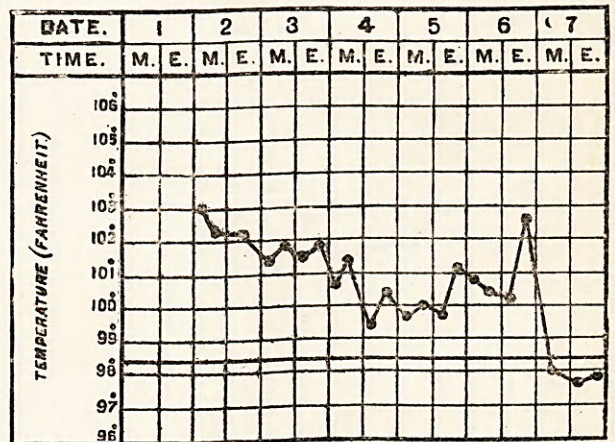


CHART V.

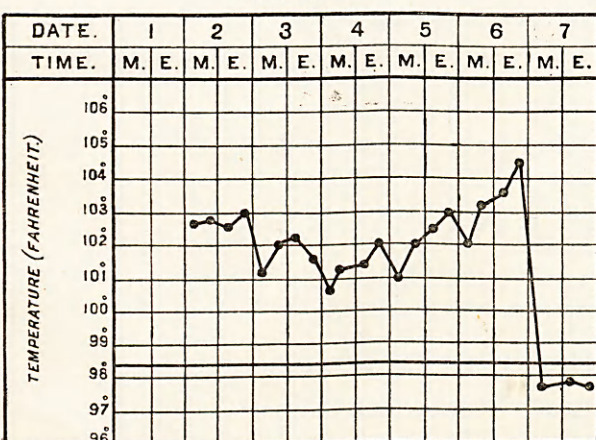
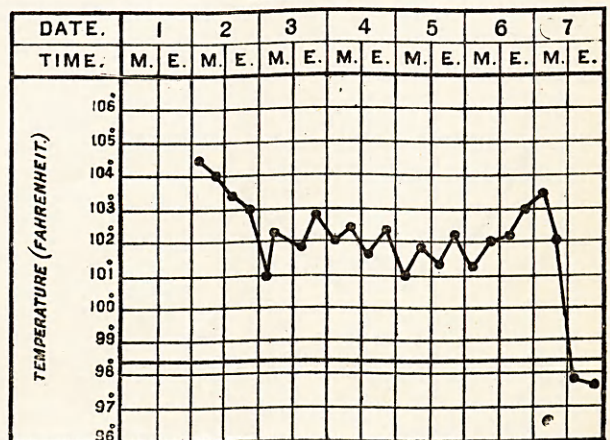


CHART VI.



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## SEVERE "SEVEN-DAY FEVER TYPE" OF DENGUE COMPLICATED BY BENIGN TERTIAN.

CHART I.

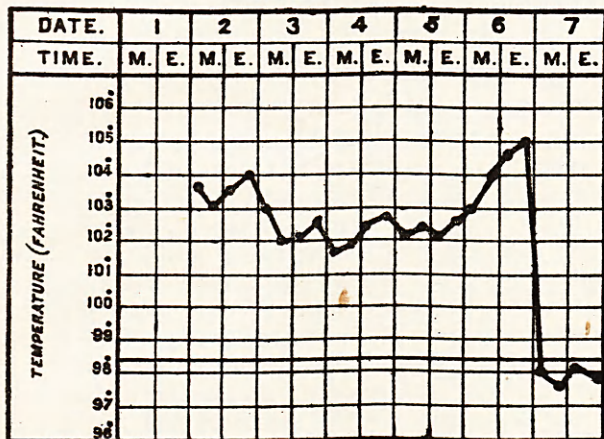


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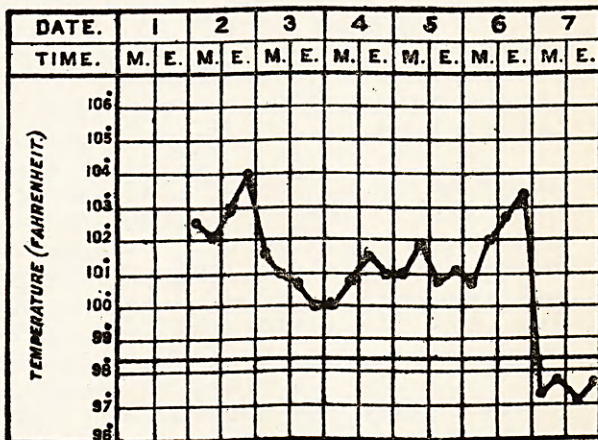


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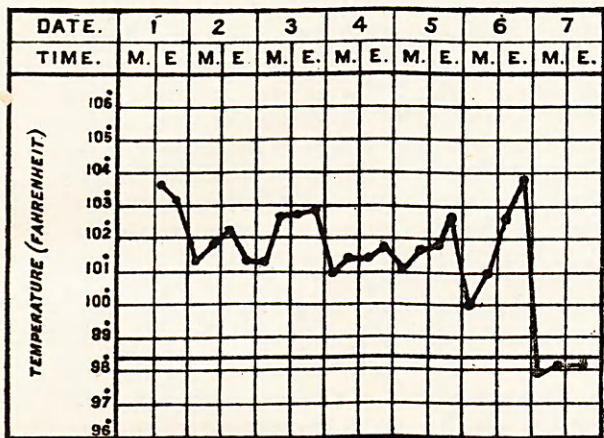


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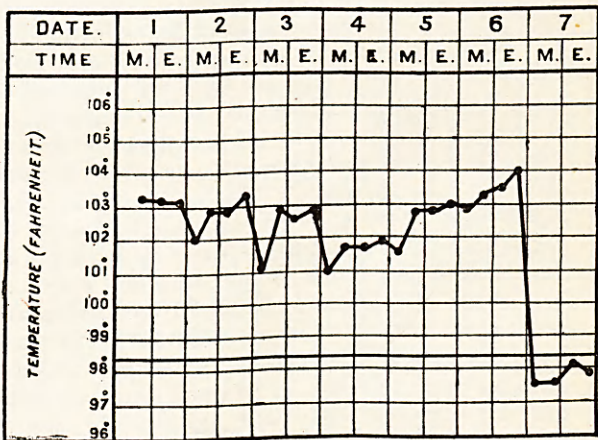


CHART V.

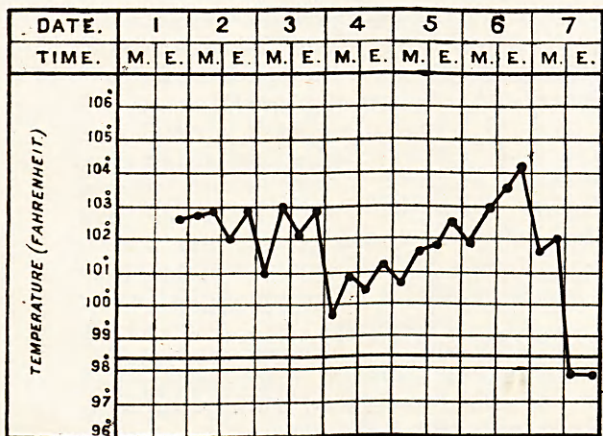
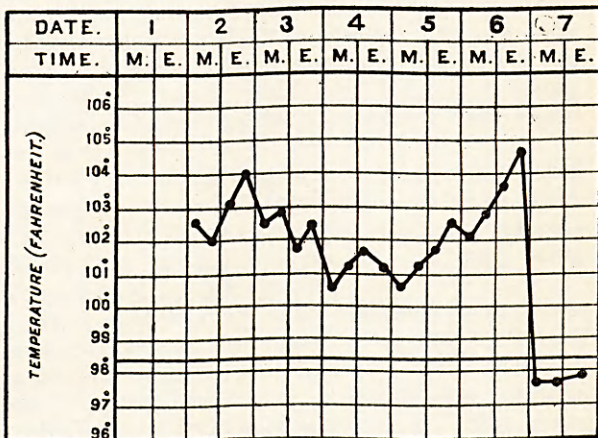


CHART VI.



rapidly rising to 103° or 104° with intense frontal headache especially at the back of the eyes; excruciating pains in the lumbar region and back of thighs, and in a few cases also in the knees. The face was very flushed, puffy, and often swollen; the conjunctiva was much injected; prostration and lethargy were very marked, and it was only with difficulty the patient could be roused to answer questions; the tongue was red at the tip and edges, and moderately coated with a silvery fur on the dorsum with prominent red papillæ. The throat was sore, the fauces especially being congested. The bowels were regular. The pulse rate was from 80 to 100 at the commencement of the illness, but much slower towards the end, especially during the terminal rise; in several cases at that period it was only 70 with a temperature of 103°; it was also very slow after the crisis, often falling below 50. Epistaxis was present in a few cases. The spleen was not enlarged in any case. There was a history of a rigor at the beginning of a few cases, but no rigors or perspirations during the illness. A mottled secondary rash occurred in a few cases, and was followed by slight desquamation. The temperature was the most characteristic feature, and remained up throughout the whole course of the illness; it rapidly rose to 103° or 104° and after remaining high for two or three days, was followed by a slight remission of three or four days, and a high terminal rise of about 104° immediately before the crisis on the seventh day. The crisis usually occurred during heavy sleep. The duration of the fever was not influenced by quinine.

Convalescence was slow, the pain in the lumbar region remaining several days after the crisis.

The mild form of seven-day fever came midway as it were between the other two types. The general symptoms were much less severe, and the remission of temperature more marked, evidently being an attempt at an intermission. The terminal rise was high, resembling an exaggerated secondary fever of the three-day fever type.

There were 140 cases in all, exactly 20 per cent. of the Regiment being affected; 65 being of the three-day, and 75 of the seven-day fever type.

All the cases recovered, excepting one who developed Pneumonia on the fourth day of his illness. Relapses occurred in four cases only, and it was noticed that they only occurred in very weakly men. The incubation period was not more than four days, proved by several men being attacked who had not been more than four days in the station; and also by the rapid cessation of the epidemic when the Regiment went into camp.

Treatment consisted of simple saline diaphoretics together with bromide and salicylate of soda for the headache, and pains in lumbar region. Quinine had no effect on the fever; it was tried in large doses both by the mouth and intermuscular injections, but only increased

the severity of the headache and had to be discontinued.

Microscopical examination of the blood was very interesting. No visible organisms could be found to account for the dengue, but in 16 out of 20 of the most severe seven-day fever type, malarial (Benign Tertian) parasites were found. Although a large number of cases of both the three-day fever and mild cases of seven-day fever were examined, no malarial parasites could be found in them, but only in the most severe seven-day fever type. It was also noticed that the more severe the symptoms, the more numerous were these malarial parasites; and that they were more prevalent at the beginning and disappeared towards the end of the illness.

NOTES.—There is no doubt but that these cases of both seven-day and three-day fever were dengue. Colonel McCloghry, I.M.S., Principal Medical Officer at Sialkot, very kindly saw them with me and agreed as to the diagnosis. The two types were much alike in many points, and the total duration of the disease was the same in both, namely, seven days.

Both the secondary fever of the three-day and the terminal rise of the seven-day fever appeared to be an attempt at a relapse cut short by antitoxins.

Epidemics of disease vary in severity, and their virulence often decreases towards the end of an epidemic without any accountable cause, and it may be, that the seven-day type of fever in this epidemic was simply a virulent type of dengue with a customary decrease in severity towards the end of the epidemic; the presence of malarial parasites being purely accidental. It is probable, however, that anything that tends to lower the vitality of the constitution may cause dengue to take the more severe seven-day fever type, therefore considering the large proportion of these cases which microscopical examination proved to be infected by malaria. I am of opinion that the severity of the symptoms and the prolongation of the fever to seven days in this epidemic was in some cases due to double infection by both dengue and malaria; and in others to the fact that the men were in a weak state of health on account of the fast of *Ramzan*, which the Regiment, being composed entirely of Mohammedans, were keeping at the time.

One very interesting case occurred complicated by scurvy which had two distinct relapses, both the severity of the symptoms and the relapses being due, in my opinion, to the case being complicated by scurvy.

It is noteworthy that the most severe cases occurred during the malarial season, and that a number of men who returned from furlough on October 15th much infected by malaria suffered most from this severe type. The other native Regiments in the station did not suffer from the disease, but remained unusually healthy.

I have not yet been able to obtain Rogers' report on the seven-day fever of Calcutta, but from his paper on "Malarial Fevers among Europeans at Calcutta and their differentiation from the seven-day influenza like fever," it appears that the seven-day fever of Calcutta must be very similar to the seven-day fever of this epidemic, the chief characteristics of which were—

1. The intense frontal headache especially at the back of the eyes, combined with great nervous prostration.

2. The excruciating pain in the lumbar region.

3. The slow pulse especially during the terminal rise.

4. Tongue red at tip and edges, but slightly coated on dorsum with a silvery fur and red papillæ showing.

5. The temperature, consisting of two or three days' high fever followed by a slight remission, and terminal rise immediately before the crisis on the seventh day.

6. The absence of rigors and perspirations during the illness.

The disease was spread uniformly throughout the Regiment, and I am strongly of opinion that it was conveyed by sand-flies, which were very plentiful at the time on account of a very dry autumn. In the spring of 1899 when in charge of a Field Hospital at Landi Kotal, I saw over 100 cases of dengue, two cases only of which were of the seven-day fever type, and have always considered it was caused by sand-flies on that occasion. It was certainly not due to mosquitoes as none were present.

My thanks are due to Captain R. M. Barron, I.M.S., for kindly conducting the microscopical examination of the blood for me.

### A NEW METHOD OF CARRYING WOUNDED OFF THE FIELD ON SERVICE.

BY J. S. O'NEILL, M.B.,

LIEUT., I.M.S.

A SIMPLE and effective method by which wounded men can be carried off the battlefield. The only appliances necessary are field service puttees, and rifles.

#### THREE METHODS.

1. *By means of one puttee.*
2. *By means of two puttees.*
3. *By means of two puttees attached to two rifles.*

#### 1. METHOD BY MEANS OF ONE PUTTEE.

One puttee is placed well forward under the buttocks of wounded man, and tied into a loop 84—88 inches in length by reef knot, placed at one side (*vide* No. 1 photo.). Rescuer bends down facing away from injured man, and applies loop of puttee over forehead [or applies puttee around back of neck below collar of coat, and over hollows of shoulders in front (*vide*

photos)], and by this means wounded man is carried (*vide* photo). Time employed in applying puttee 15 seconds.

#### 2. METHOD BY USING TWO PUTTEES.

(1) One puttee placed under buttocks of wounded man, and over forehead (or around nape of neck, and over shoulders) of rescuer, as in first method.

(2) Second puttee overlapping first puttee, and passing round the middle of back, and under armpits of wounded man, and under armpits, and over front of chest of rescuer, and tied at one side by reef knot and forming a loop 72 inches in length. Time employed in applying two puttees 22 seconds.

By these means wounded men can be carried with great ease for considerable distances (1 to 2 miles), hands being free to carry rifles, especially useful over broken country and in hill warfare, but equally useful in the plains. The photos show the method of carrying by puttee applied over forehead. Other photos show method when puttee applied over shoulders of rescuer.

The puttee employed was the field service puttee, khaki, length 9 feet 3 inches, breadth 4½ inches, tape 6 feet in length, breaking strain 232 lbs. (16 st. 8 lbs.).

When two puttees are employed, only about two-thirds of the weight is on the lower puttee.

#### 3. METHOD BY MEANS OF RIFLES AND PUTTEES.

Two puttees are applied to two rifles, forming nine bands from muzzle to butt.

The rifle bolts are removed, and the cartridges withdrawn.

The two rifles are placed with trigger-guard uppermost, and the two puttees are applied to the rifles forming nine cross bands uniting the rifles and forming an improvised stretcher:—

1st *band* passing from barrel of one rifle to piling swivel of the other.

2nd *band*, from piling swivel to fore end.

3rd *band*, fore end to outer band.

4th *band*, outer band to hand guard.

5th *band*, hand guard to front of magazine.

The second puttee is here knotted to first puttee.

6th *band*, magazine to trigger guard.

7th *band*, trigger guard to small butt.

8th *band*, small butt to butt swivel.

9th *band*, between butt swivels.

Puttees applied to rifles by simple hitch, and arranged at such parts of the rifle, so as to prevent slipping. Length of stretcher thus formed by puttees, is about 44 inches, breadth about 15 inches.

Method by means of rifles is useful where men are seriously injured, head can be carried level, head at butt end, legs allowed to hang down at muzzle end of rifles.

The two straps of rifles can be tied over chest of wounded man, when carrying over rough country (*vide* photo). Distance of transport