

Medicine. Of 111 officers interrogated on the prophylactic value of quinine in 10-grain doses twice weekly, their opinions were divided, the majority holding that it was of little or no value, and some even saying that it was detrimental. For treatment in an advanced dressing station for three days, one officer considered that quinine should be given in 80-grain doses daily. The majority (about 63 per cent.) were in favour of 30 grains daily.

For treatment after return to duty subsequent to the above, nine officers advised stoppage of all quinine; seventy-three considered that the drug should be continued for from one to three and a half months in daily doses, according to different opinions, of 10, 20, or 30 grains. Some recommended gradual reduction of the amount of daily quinine during the same period.

In treating cases following discharge from hospital the treatment advised was much the same, the medical officers expressing the same opinions practically as for cases leaving dressing stations. Subsidiary treatment was recommended by some. Continuance of quinine until the end of the malarial season had also some supporters.

Both these papers include an account of a large amount of work done by many skilled officers, and should serve as a valuable guide to officers and medical men who have charge of malarial cases or intend carrying out further investigation work on this very important subject. It is desirable that an effort be made to ascertain definitely why quinine, so successful in the majority of cases, should fail in others.

An interesting addendum to the first report deals with the excretion of quinine in the urine. It seems that there is a tendency for the excretion of quinine to reach a concentration of 7-11 grains per litre of urine. These results obtained no matter what salt was given or how administered, except, perhaps, in the case of the lactate.

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SCIENTIFIC PROBLEMS OF DISABLED SOLDIERS.

WE commend to the attention of our readers the April issue of *Recalled to Life*, a journal edited by Lord Charnwood, and devoted to "the care, re-education, and return to civil life of disabled sailors and soldiers." Its articles are written by men who are seeking for practical solutions of the problems presented by disabled soldiers—problems which are both medical and sociological. Half of the men who are wounded require special treatment for the restoration of movement to damaged limbs. Great military hospitals have been, and are being, established in various centres throughout the country for the treatment of these orthopaedic cases. The establishment of these great "orthopaedic" centres has been accompanied by a real educative movement, in which surgeon and soldier have been equally involved. It is true that no new principle of treatment has been introduced; the old methods have been adapted to new conditions and applied on a scale which no one had ever anticipated.

Sir Robert Jones, who contributes an article on "The Problem of the Disabled," was the first to realise that success in the treatment of orthopaedic cases was largely a problem of education—to teach soldiers how to bring back lost movements to damaged joints by voluntary and natural movements of the limbs. The introduction of "curative workshops" to military hospitals is one of the most profitable innovations of the war. Of the men treated in orthopaedic hospitals about three-fourths return again to military

service; the remaining fourth is discharged as unfit for further service. It is now the business of the Ministry of Pensions to look after the welfare of that discharged fourth.

Various writers describe the organisations which are being brought into existence to meet the needs, not only of the men discharged from orthopaedic hospitals, but also of the large numbers rejected by the Army on account of a permanent breakdown in health due to exposure in the field, resulting in rheumatism, tuberculosis, disordered action of the heart or of the brain. To meet the needs of the discharged unfit the Ministry of Pensions is establishing throughout the country centres of treatment and superintendence. An ideal form of "village centre" for the cure and training of discharged men is described by Mr. Warwick Drapé. Major Dundas Grant contributes an article on the training of the deaf soldier. Everywhere the importance of "self-help" is emphasised. Capt. Wilbur C. Lowry, of the Canadian Army Medical Service, while giving an account of the "remedial exercises" practised in the orthopaedic gymnasium Granville Canadian Special Hospital, Buxton, mentions the fact that the best teachers are to be found amongst the men who themselves have undergone gymnastic treatment.

CLIMATOLOGY OF PARIS.¹

MFLAMMARION, in the comprehensive report referred to below, not only gives a summary of the meteorological conditions in Paris during the years 1915 and 1916, but also carries the comparison of the seasonal variations of the principal climatic elements back to 1886. The year 1915 had a mean temperature equal to 10.4° C., or 0.2° above the normal, while 1916 was in even closer accordance with the average. The rainfall of 1915 was 574 mm., and of 1916 698 mm., or respectively 3 per cent. and 22 per cent. above the average. The author concludes that "in spite of the frightful intensity of the cannonades, they have exerted no influence on the rainfall in the region of Paris." In 1915 less than half the average fell in the months of March, May, and October, the only month showing an excess being December, when, however, the rainfall was more than double the average. This was followed by a very dry January (1916), with less than a quarter of the average. Although somewhat wetter than 1915, no month in 1916 had an excess of rain greater than one-third of the average.

Some remarkably low barometric pressures are referred to, the most notable being those of November 12-13, 1915, and November 18, 1916. On the former occasion pressure fell to 723 mm. (28.46 in.), the rise after the minimum being extremely rapid, amounting to 25 mm. (0.90 in.) in fifteen hours. On the latter date pressure descended to 713 mm. (28.07 in.), this being the lowest reading in the vicinity of Paris since December 24, 1821. In 1915 temperature was somewhat abnormal, the coldest month, November, having a mean temperature 4° C. lower than that of December. In 1916 the lowest temperature occurred as late as March 8, while the month of June was colder than May. An interesting diagram is given for each year of the daily variations of the various elements of climate, the phases of the moon being also shown, as the author remarks that "the ignorant" still continue to associate weather phenomena with the lunar period.

¹ "Rapports sur les Travaux de la Station de Climatologie agricole de Juvisy pendant les Années 1915 et 1916." Par M. Camille Flammarion Directeur de la Station. Pp. 41.