

absolue." Under the term *Culex*, I think he means to include also gnats of the genus *Stegomyia*.

I have received confirmatory evidence from a gentleman in Egypt, who says that he was recently able to sleep at Ismailia without mosquito nets.

The campaign against *Culex* at Ismailia originally promised to be a difficult one, owing to the large number of sewage-cisterns under the houses, and the result shows how easily a simple and obvious idea like that of diminishing mosquitoes by dealing with their breeding places can be acted upon by an intelligent and effective executive which sets to work at once, instead of wasting time on useless discussions—as, for the most part, we have been doing in British possessions during the last four years.

It is to be hoped that, following the work of Gorgas at Havana, and Logan Taylor at Freetown, the result at Ismailia will be accepted as clinching the proof of the fact that *Culex*, at least, may be materially diminished in tropical towns.

RONALD ROSS.

Liverpool, July 11.

TRANSLATION of letter, dated July 2, from M. le Secrétaire général de la Compagnie universelle du Canal maritime de Suez, Paris, to Major Ronald Ross, Liverpool School of Tropical Medicine:—

"Sir,—I have the honour to inform you that, following your mission of last September, numerous works of drainage and filling up of ditches have been effected, and that a permanent department has been created for the purpose of oiling cisterns and pits and suppressing marshes and pools of water amongst the habitations of Ismailia. Moreover, measures of prophylaxis, consisting of the gratuitous distribution of quinine and arsenic, commenced in the month of April, 1902, are continued without interruption.

"Since last December, the number of cases of fever has very sensibly diminished by comparison with previous months and with the corresponding period of last year, and this decrease is maintained until to-day.

"Owing to the time at which the sanitary works were undertaken, the complete disappearance of the *Anopheles* is not yet realised, but it can be stated that recently captured insects have not been infected—which can perhaps be attributed to the fact that the number of cases of fever have been considerably reduced.

"On the other hand, it is interesting to note that, thanks to methodical *petrolage*, and to the incessant surveillance of the breeding-places of mosquito larvæ, the mosquitoes called *Culex* have been suppressed in a manner almost absolute, and that, in the hottest period of the year, it has been possible to abandon the use of mosquito nets.

"Regarding the consequence of these measures, a definite statement cannot be made until after August to November next, the principal malaria season. We have every ground for hoping that the efforts with which you have been so usefully associated will end in the complete extinction of malaria in the town of Ismailia, and we will communicate with you when we receive definite information on this interesting subject."

#### Another White Spot on Saturn.

ON July 9, at 14h. 4m., I observed another large white spot in the northern hemisphere of Saturn, and on the central meridian of the planet. The spot was quite bright in contrast with the dark belt adjoining it, and a tolerably easy object. I saw the spot again on July 12, when it shone with a bright pearl-like aspect, and was estimated on the central meridian at 12h. 50m. The marking is much distended in longitude, and this makes it rather difficult to note its central passages accurately, but the motion of the object seems decidedly swifter than the rate usually adopted for the rotation period of Saturn.

The following end of a bright extension on the eastern side of the spot was on C.M. at 13h. 35s. on July 12, and a dusky patch between the N equatorial belt and the polar shading followed at 14h. 1m.

The markings above alluded to are quite different from the bright spot seen by Barnard on June 23, and by myself on July 1. The present disturbance on Saturn seems to have affected a very large area, and I have never observed anything of the same conspicuous character on the planet in past years.

W. F. DENNING.

Bishopston, Bristol.

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#### The Thunderstorm of May 31.

MR. C. H. HAWKINS, of Croydon, has sent me a copy of a photograph of a lightning flash taken by him at "Addiscombe," Croydon, on Whitsunday morning, May 31, at 2.30 a.m.

The upper part of the main flash and the side flash both show reduplication, and the photograph exhibits so many



Lightning discharge photographed at Addiscombe, Croydon, on May 31, at 2.30 a.m. Direction N.N.W.

characteristic features that its reproduction may be of service for comparison with other photographs.

I therefore enclose a copy with Mr. Hawkins's permission. Meteorological Office, S.W., July 7. W. N. SHAW.

#### THE LODGE-MUIRHEAD SYSTEM OF WIRELESS TELEGRAPHY.

THE system of wireless telegraphy which Sir Oliver Lodge and Dr. A. Muirhead have been developing for some years has, within the past few months, been brought to a degree of perfection which justifies the inventors in the belief that it is now of practical commercial value. Thanks to the courtesy of Messrs. Muirhead and Co., we have had an opportunity of seeing the system at work at a small experimental installation which has been put up in a field adjoining Messrs. Muirhead's works at Elmers End, Kent. At this station signals were being transmitted to and received from a similar installation at Downe. The distance between the two stations is only six or seven miles, but the chalky nature of the Kentish soil and the fact that the station at Elmers End lies in a hollow make this distance equivalent to eight or nine times as much over water. Experiments which have been made under the conditions which would obtain in the practical application of the system for maritime work and also over the Admiralty sixty-mile range have shown that, with the same power and the same adjustments as are required between Elmers End and Downe, thoroughly satisfactory communication can be maintained across sixty miles of ocean. Considerations of distance are, however, of secondary importance in estimating the merits of wireless telegraphy systems, for the recent work of Mr. Marconi and others has made it clear enough that, given sufficient power, almost any range can be attained. Trustworthiness, clearness, the design of circuits and apparatus, and the possibility of successful syntonisation are factors of greater importance. Looked at from this point of view, the Lodge-Muirhead system presents several novel and interesting features which show that, though it may be one of the latest to come into the field of practical wireless telegraphy, it is likely to prove one