



*N.B.*—Before inoculating each tube the cork was taken out aseptically and formalin well shaken off from the surface. A very inappreciable quantity of formalin must have remained with the corks.

In the experiments summarized in the above tables, two tubes were inoculated each time of testing; and if even only one showed contamination and the other no growth, the result was noted down as "contaminated."

Among the india-rubber corks for 20<sup>cc</sup>. bottles, some corks were found coated with a very thin reddish-brown material; but these were equally sterilizable with the clean corks.

The use of the ordinary corks for bottling the plague prophylactic has been discontinued since the arrival of the English bottles of measured capacity. But whenever there is an occasion to make use of these corks, the practice is to sterilize them in water at a pressure of one additional atmosphere for one hour consecutively on two days, and on the third day to transfer them in formalin lotion (2 p. c.) and keep them for three days similarly as in the case of the india-rubber corks. At the time of stoppering the bottles the (ordinary) corks are dipped in paraffin at 160° and then fixed over the bottles, the neck of the bottle being wrapped in parchment paper which has been kept soaked in carbolic lotion (1 in 20) and then sealed with paraffin. For india-rubber corks these operations are considered unnecessary as the cork can be fixed airtight without further operations.

#### NOTE ON THE PREVALENCE OF THE ANKYLOSTOMUM IN CALCUTTA.

(FOR THE I. M. G. COLLECTIVE INVESTIGATION.)

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DURING the last five months I have carefully counted the number of ankylostoma found in *post mortems* at the Calcutta Medical College. The method adopted was to wash out the contents of the small intestine with a strong stream of water, which is passed through fine muslin, and what is retained by it is then examined in a thin layer of water in an enamelled basin, and all the worms picked out. On opening the intestine any remaining in it can be then easily found and counted. The great majority of the worms are found in the washings except when the *post mortem* is made within a few hours of death, when many may still be found to be attached. By this method few worms are likely to be overlooked.

The results were as follows:— Out of 59 bodies examined the ankylostoma were found in

44 or 74.6 per cent., while they were absent in 15 or 25.4 per cent. From 1 to 10 worms were found in 24 cases; from 11 to 20 in 7; from 21 to 30 in 6; from 31 to 50 in 2; and over 50 in 5; the numbers in these last five cases being, 88, 93, 138, 76 and 80 respectively. Two of these last five cases had died of cholera, and in only the one with 138 worms was there reason to believe that the worms were a definite contributory cause of death. The average number of worms present in those bodies which harboured them was 23.2, or in the whole series 15.2. In fourteen cases of cholera the average number was 14.1, and in six cases of phthisis it was 14.8, so that the numbers were practically the same in both the acute and the chronic affection and in the whole series.

In the same series of 59 cases round worms found were in 25, in numbers varying from 1 to 10. The trichocephalus dispar was found in four cases, and four bothriocephalus latus in one case of cholera. No flukes were found in this series so that they appear to be less common in Calcutta than they are in Assam.

With regard to the ages of the patients an analysis of the figures available shows that between the ages of 20 and 39 they were present in 21 cases and absent in six, while between those of 40 and 65 they were present in ten and absent in six, so that they appear to be met with more commonly in the earlier age period. The number of cases at earlier ages were too small for comparative value, but they were found in two patients of the ages of 15 and 18 respectively, and were absent in a child of 4. There was little difference between the two sexes, not sufficient to be of any importance in such a small number of cases.

These results agree very closely with those previously obtained by the late Dr. McConnell, of Calcutta, nearly twenty years ago, and afford no support to Major Giles's statement as to the "waxing and waning of helminthic diseases." The frequency of these worms in the inhabitants of such a crowded city as Calcutta is also somewhat surprising if the same author's view that these parasites gain the access to the intestinal canal in earth is correct, for if such was the case, they should be more common in villages than in towns.

These results, then, once more confirm the frequency of these parasites in persons dying of all kinds of disease, while even cholera does not appear to remove them, and emphasise the necessity of great caution in accepting their mere presence as evidence of serious disease produced by them, it being obviously necessary to prove that they are present in larger numbers in any special disease than in the ordinary inhabitants of the district, before they can be considered the cause of any increased mortality due to that special disease.