In relapsing fever in Europe the bedbug (*Cimex*) has long been suspected to be a carrier of the infective agent, a probability which was considerably heightened by Karlinski's observation of motile spirochaetae in the bodies of the insects up to thirty days after they had fed on relapsing fever blood. Schaudinn, moreover, informs me that he has observed the multiplication of the *Spirochaeta obermeieri* in *Cimex*. These observations, following closely upon those published by Marchoux and Salimbeni, are of greatest interest and practical import. The last-named authors demonstrated that a fatal disease of the fowl in Brazil is due to a spirochaeta which is transmitted through the agency of a tick (*Argas miniatus*), and this is capable of conveying the disease even six months after feeding on infected blood. These spirochaetae multiply in the tick, and are present in large quantities in its body cavity throughout this period. These observations are very suggestive since they demonstrate the long persistence of the parasites in their carriers, and render it probable that they will be found to be harboured much longer.

Finally, the finding this year of *Spirochaeta pallida* in syphilis by Schaudinn and others in man, and by Metchnikoff and Roux in experimentally-infected apes, cannot escape a passing notice even though the disease is, unfortunately, not confined to the tropics. It is of some interest to note that the close blood relationship existing between the apes and man, demonstrated independently by means of the precipitins by Grünbaum and myself, served as a direct incentive for the experiments of Metchnikoff and Roux, Lassar, and Neisser, which proved that human syphilis is communicable to the chimpanzee and orang-outang.

Of interest have also been the further discovery this year of a number of new protozoal parasites in the blood of different animals, in addition to numerous new species of trypanosoma. I refer to new forms called "leucocytozoa" because they inhabit the white blood corpuscles of their vertebrate hosts. Leucocytozoa were first discovered by Bentley in dogs in India, and were described, without sufficient mention of this fact, by James. Another species has been found by A. Balfour in the rat (*M. decumanus*) in Khartoum; and, lastly, W. S. Patton informs me that he has found a species in the squirrel (*Sciurus palmarum*) in India, and apparently observed developmental forms thereof in a louse. Balfour has, moreover, described a new haemogregarine occurring in the jerboa (*Jaculus jaculus*), and Graham-Smith, in our laboratory, has found another new endoglobular parasite in the mole. This by no means exhausts the "finds" of this year, but it will suffice to show that British workers are doing their share in furthering our knowledge in this regard.

Of the diseases due to vermes I can say but little. The discovery of Otto's *Schistosomum* in this laboratory is familiar to you all. It is interesting to note, following on the experiments with *Ankylostoma duodenale* by Looss, proving that the embryo worm can infect by penetrating through the skin, that Boycott in London and Tenholt in Germany have confirmed the fact this year in two experiments conducted on medical men who volunteered for the purpose.

Again, it is apparent that the subject of immunity in relation to protozoal diseases is proving to be one of great difficulty, and the results hitherto obtained indicate that new methods will have to be devised if the problem is to be solved from a practical, and still more so from a scientific, standpoint. It is also obvious in this connexion that the problems before us can only be solved by animal experiment, and this accentuates the need of our giving an increasing amount of attention to comparative pathology as we push on toward the alleviation of the ills to which our own flesh is heir.

Gentlemen, I must apologize for the very sketchy nature of the summary which I have just given you. There are many matters left untouched, including even such important diseases as yellow fever and Malta fever, on which active work has been done. My object has been to seize upon a few salient facts with a view to showing how much has been accomplished within a short period, and how great are the opportunities of the workers in this school who are destined to labour in new fields in different parts of the world. Perhaps what I have said—in no spirit of presumption—will serve as an incentive to some of my hearers. Let me conclude with some wise words from the Talmud:

The day is short and the work is great:
It is not incumbent upon thee to complete
the work, but thou must not therefore
cease from it.

A NEW OPERATION FOR MODERATE SHORT SIGHT.

By ERNEST E. MADDOX, M.D., F.R.C.S. EDIN.,
Ophthalmic Surgeon, Royal Victoria and Royal Boscombe Hospitals,
Bournemouth.

HAVING already described in the BRITISH MEDICAL JOURNAL of October 15th, 1904, p. 1042, an example of the amelioration of short sight by pressure-massage of the eyeball, it may be of interest to communicate the sequel. It is, indeed, more for its interest, as the first of its kind, than as a precedent, that I narrate the operation which follows, since it is of too hazardous a nature to be justifiable except under the exceptional circumstances of this special case. Though very high degrees of myopia have for some years, by nearly all ophthalmic surgeons, been satisfactorily treated by removal of the crystalline lens, no operation for moderate degrees of short sight has, to the best of my knowledge, been ever attempted hitherto, much less carried to a successful conclusion. The history briefly is as follows: X, aged 16, while training for Woolwich, was discovered by Dr. Heygate Vernon of Boscombe to be disqualified for the medical examination by a slight excess of short sight in both eyes, but rather more in one than in the other. Owing to family circumstances, the loss and disappointment were so great that Dr. Vernon sent him to me on April 25th, 1904, to see if I could possibly do anything for him. This led me first to try the pressure-massage treatment recommended by Dr. Domec of Dijon, which improved his vision to the extent described in my former communication, and which would have passed him through the army medical examination with ease, had it been held sooner.

By December, 1904, however, the improvement had disappeared and repetition of the pressure massage was now insufficient to bring his vision to the required standard. This I attributed to the eight months of hard study causing aggravation of the defect by further lengthening of the eyeball.

On presenting himself for the army visual examination in January, 1905, one eye was passed, with just $\frac{1}{4}$, and the other rejected as $\frac{1}{2}$; and, though appeal was allowed, he failed again. Upon his pleading that I had proposed to do an operation to make the eye pass, he was told that since there was none that could be done, it was quite impossible. Unable, therefore, to get a respite for the purpose, the candidate had to work for two more terms of study, and go over the whole knowledge examination again before he could get a chance to reapply, with all the risk of thereby increasing his myopia.*

I therefore took measures to prevent increase of myopia in his better eye, and after fully laying before him the risk, and not withholding the fact that it had never been done before, I yielded to his repeated requests to attempt the operations which I had planned. They consisted in flattening the cornea, first in one meridian and then at right angles, the idea being borrowed from an informal and then untried suggestion which I had made, during a brief communication to the Ophthalmological Society, for the correction of myopic astigmatism by conjunctival sutures. Taking the patient into my nursing home on January 20th, 1905, and without chloroform, I thought it best to commence with the most difficult meridian, namely the horizontal, first, so that should the experiment fail, he might be spared two operations. It is impossible, with most eyes, to make a large lateral corneal incision with a straight cataract knife. I, therefore, first of all dissected up a conjunctival flap, and threw it over the cornea, then introduced a triangular iridectomy knife between the reflected conjunctiva and the sclera, and entered the anterior chamber.

This route I had never traversed before, and it made the operation an exceedingly delicate one, for the peripheral nature of the incision, in his unusually nervous and mobile eye, made the iris prolapse again and again, and especially after enlarging the incision above and below with a probe-pointed knife, which formed the next stage of the operation, for only a very large incision is capable of producing a regular flattening of the cornea. At last the iris was comfortably reposed, and the conjunctival sutures inserted so as to exert considerable traction on the flap. Healing was painless and uninterrupted. The second operation was done on April 7th, after another term of study, and was a much simpler matter than the first. The incision was made with an ordinary cataract knife, this time downwards, and the healing was equally speedy. On August 23rd, after another term of study, he wrote: "I passed the medical successfully yesterday."

* Since discovering that the visual improvement by Domec's pressure massage has an evanescent factor, I have (as in the case of another effective, but temporary, measure) not felt justified in practising it just before army and navy examinations, as it would manifestly defeat the intention of the authorities. Operative or radical treatment is of course different.