carbon bisulphide. The process is being extended to the remainder of our works, and in a year's time the whole of the gas supplied by this company will be completely purified from the bisulphide, treatment for which has so long baffled chemists and scientists. The full advantage as a steriliser of the bunsen flame used in incandescent gas lighting will thus be obtained in our living and sleeping rooms without any disadvantage arising from any excess of sulphurous acid from the products of combustion which it is not possible to guarantee when only oxide of iron is used.

I am, Sir, yours faithfully,

CHARLES CARPENTER.

South Metropolitan Gas Company, S.E.,
Nov. 12th, 1913.

* * This is a gratifying endorsement. It is most satisfactory to learn that one of our great gas-making companies intend soon to supply the whole of their gas entirely free from sulphur compounds. Great sanitary advantages in the domestic use of gas will follow, and a very large amount of destruction will cease to occur that undoubtedly occurs now in domestic fittings—e.g., books, metal ornaments, burners, curtains, ceilings—by sulphur in the gas. We congratulate the South Metropolitan Gas Company on their policy, and we recommend Dr. Carpenter's letter to the attention of that usually sensible trade organ, the *Journal of Gas Lighting and Water Supply*. The manners and intelligence of that journal deserted it last week.—
ED. L.

BIG GAME AND SLEEPING SICKNESS VERSUS MAN AND HIS ANIMALS.

To the Editor of THE LANCET.

SIR,—Everyone who is concerned with the development of Africa and with the study of those diseases which have been the greatest of the obstacles preventing the colonisation of tropical countries by Europeans must be deeply interested in the papers published by Kinghorn and Yorke, and by the discussions which their papers have occasioned.

Some of the work on which Kinghorn and Yorke base their advice that big game should be destroyed in areas near settlements has led to results which are not quite in accordance with the experience of those who have worked on human trypanosomiasis in East and in West Africa; these differences are probably attributable to varying conditions of the localities in which the observations were made. The correctness of their work and of the facts which their work makes evident is unquestioned. The situation is clear: big game—especially antelopes—are the reservoirs of, and *Glossina morsitans* is the carrier of, trypanosomes which cause fatal diseases in men and animals; there is no efficient means of destroying the fly nor of curing the diseases caused by the parasite. The only means which offers any immediate promise of controlling the situation is the destruction of the reservoirs. The clear-cut directness of the reasoning is striking; no less striking is the sufficiency of the ascertained facts with which arguments proffered against it can be met.

Such is the situation. The nature of the action which it prompts should depend upon the ultimate object of our racial activity in Central Africa. If it is to open up more areas to permanent, thrifty European colonisation, then the game must go—for the present, at all events. Perhaps through inherited centuries of habit and tradition, the

impulse to preserve game is an imperative social instinct to most Europeans; consequently, a suggestion that game should be exterminated inevitably excites hostile prejudice in most of us. But the question is too serious a one for us to allow ourselves to be swayed by any such emotion; reason alone must decide it. However agreeable a little shooting may be, no real settler will hesitate for long in choosing between the game and his domestic animals. Nor will those who are not settlers regret the loss of licence fees and of a wonderful playground, nor will they regret even the destruction of an interesting fauna in the building up of permanent European settlements in the tropics.

In view of the facts it is reasonable to carry out the experiment which Dr. Yorke proposes. I give it the whole-hearted support of many years spent in the study of trypanosomiasis (nearly four of them in Africa); the support is given the more readily since Dr. Yorke expressly limits the proposed destruction to a comparatively small area. The experiment, as Dr. Yorke outlines it, would soon show whether it were possible to prevent trypanosomiasis by the destruction of the big game in a limited area. And it would provide an opportunity to those engaged in carrying it out for supplying much-needed replies to many of the unanswered questions concerning trypanosomiasis and its transmission. Among the most important of them are questions concerned with the duration of trypanosome infections and with the existence and production of immunity in them. Answers to these questions, or to others concerning the bionomics of tsetse flies, can only be obtained by observations made in Africa over a period of years by competent persons.

I am, Sir, yours faithfully,

J. L. TODD.

THE DUTIES AND STATUS OF THE SCHOOL MEDICAL OFFICER.

To the Editor of THE LANCET.

SIR,—There has been a feeling of discontent for some time past among the majority of those actually engaged in the work of medical inspection of school children. In the greater number of areas an undue proportion of the work of these officers consists in the routine inspection of a large number of children, a considerable proportion of whom present no feature of especial interest to a medical man. The salary offered for the work is usually inadequate; the initial salary is in most cases too low; rarely is the increased value of the services of the officer acknowledged by an adequate increase in his or her salary. In a few areas, including Bradford and Brighton, this state of affairs either has not existed or has already been altered; arrangements have been made so that the medical officers actually inspecting the children are only required to inspect a reasonable number of children in the year, the rest of their time being taken up in treatment, &c. The grievance of inadequate salary is remedied to a certain extent in both these areas.

A feeling also exists that the result of the increased activity of the public health world in the last few years has been the creation of a large number of subordinate officials for whom there is but little outlook. In order to improve the status of the officers engaged in the school medical service

an organisation has been formed within the Society of Medical Officers of Health. The advantages of this course over those of forming a separate association for the purpose are that the society can offer the benefits of many years of experience of organisation; it has funds at its disposal and a journal; in addition, many of those engaged in the school medical service are already members of this society. All those engaged in the service of education committees, either in an administrative capacity or as medical inspectors of school children, are eligible for membership of the group if members of the Society of Medical Officers of Health. Membership of this society is open to the same class of the medical profession, including ladies, who are especially welcome.

The improvement of the status of the school medical service is a matter requiring careful handling by experienced persons. Prominent members of the Society of Medical Officers of Health have already afforded valuable service to the movement. Mr. Herbert Jones, one of the secretaries of the society, undertook the duties of chairman at the initiatory meeting; Dr. Alfred Greenwood, county medical officer of health and school medical officer for Kent, presided at the first meeting of the group.

In order to avoid the unnecessary inconvenience and expense involved by attending meetings in London, it is desirable that groups of officers engaged in the school medical service should be formed in the branches of the Society of Medical Officers of Health. The arrangements for these groups would, of course, be made by the local members. The opinion has, however, been expressed by several who would become members of the branches that it would be desirable to hold the meetings on the same day as the ordinary meetings of the branch in order to avoid multiplicity of journeys. In order to link up the groups in the branches with the central group, it has been arranged that the executive committee shall include, in addition to the chairman, secretary, and treasurer, a representative elected by each of the groups formed in the branches. It has also been suggested that the groups might with advantage adopt as an item of their policy the following extract from the criticism of the Board of Education on the School Medical Service in London.

The Board suggested that:

Each assistant medical officer should be entrusted with other kinds of work, for example, the further examination of visual defects, public health work, including investigations of infectious diseases in schools, the medical inspection of children in secondary schools, scholarship candidates, &c., work in connexion with the special schools, research and laboratory work, and some share in the working of the administrative arrangements. The work of treating minor ailments arises naturally out of the work of the inspection centre and could most effectually be carried out in intimate conjunction with the work of the inspection centre by the officers responsible for that work.

The movement is not necessarily in favour of a school medical service independent from the public health service or a school medical service *ad hoc*. Certain of the members of the group have, indeed, expressed themselves strongly as to the necessity of making all assistant school medical officers not only nominally but actually assistant medical officers of health.

It is hoped that as many as possible of those eligible for membership of the group will attend the next meeting to be held on Saturday, Dec. 6th,

at 2 o'clock, at 1, Upper Montague-street, Russell-square, London, W.C.

I am, Sir, yours faithfully,

C. W. HUTT, M.A., M.D. Cantab., D.P.H. Oxon.,
Senior School Doctor, Brighton; late Assistant Medical Officer of
Health, Warrington.
School Clinic, 7, Gloucester-place, Brighton, Nov. 15th, 1913.

POLIOMYELITIS IN ENGLAND.

To the Editor of THE LANCET.

SIR,—To the remarks on acute poliomyelitis in THE LANCET of Nov. 15th please allow me to add a few more. In the summer of 1910 there were ten cases of poliomyelitis in my practice in Carlisle, in February, 1912, one case, and in October of this year one case. Two of the patients had a rash on the abdomen resembling the scarlet fever rash during its fading stage. One patient that died had from the commencement of the disease an inflamed throat with a white spot on one tonsil.

The majority of the cases occurred in houses inhabited by the poorer class of workers and infested with flies, fleas, and lice. These vermin may be connected with the origin of the disease, but in the streets where my cases were I have at times found very foul odours, and I know that the children are allowed to crawl about the doorways and along the kerb, where they can inhale directly any poisonous smells arising from the street.

I am, Sir, yours faithfully,

Carlisle, Nov. 16th, 1913.

MALCOLM STEWART.

"TWINS" OR SUPERFŒTATION?

To the Editor of THE LANCET.

SIR,—In consequence of the maternity benefit connected with the National Insurance Act the daily press has brought to the notice of the general public a question of the greatest scientific interest, as within the last 12 months apparently, two mothers have each respectively given birth to two children, with in one case an interval of five weeks and in the other an interval of six weeks between the children. The problem which attracts scientific attention and calls for solution is: Are the children thus born to be regarded as twins or not? We know that true twins may exhibit at birth a marked disparity both in size and development, but it is impossible to believe that two ova impregnated at the same time and lodged in the same uterine cavity can be so influenced that one completes its uterine development and growth and is expelled from its maternal abode 35 or 42 days after its fellow. It is quite possible that two ova may be shed and impregnated at different times during the same inter-menstrual period, but the offspring thus begotten will be born at practically the same time. The question which now confronts us is: Is true superfœtation possible? That is, is it possible for an ovum to be fertilised 35 or more days after the process of gestation has asserted itself in a previously fertilised ovum? As ovulation occurs whilst menstruation is held in abeyance by lactation, there is no apparent reason why ovulation may not occasionally occur during gestation, and under such circumstances superfœtation is possible, and the mother who gives birth to two children which are born after a greater interval than 28 days is clearly entitled to the maternity benefit for each. I am, Sir, yours faithfully,

JAMES OLIVER, M.D., F.R.S. Edin.
Harley-street, W., Nov. 15th, 1913.