THE ANTITOXIN TREATMENT OF TETANUS.

DR. C. E. DOUGLAS, D.P.H.Camb., Medical Officer of Health, Cupar, Fife, sends the following account of a case:

K. G., aged 63, gardener, was bitten on August 23rd by a dog upon the thumb. He did nothing to the wound, which was slight, and continued working in his garden. On August 28th he began to feel some stiffness about the jaws, with difficulty of swallowing, but paid no attention to it till August 31st, when I was sent for. My assistant saw him at once. The teeth were clenched, and the jaws could only be separated about a quarter of an inch. The original wound was quite healed. Eserine salicylate $\frac{1}{10}$ gr. was injected subcutaneously. That evening I saw him. The symptoms were unaltered; the pulse and temperature normal. Chloral hydrate 20 gr. was ordered to be taken every three hours.

On September 1st he was rather easier, and the trismus was not so evident. On September 2nd he had considerable pain in the back and abdomen. The recti could be felt in relief, and very tense. On September 3rd he had stiffness in the legs and back. On September 4th he had some spasms during the night. Chloral was given every two hours. The temperature was 100°. During the day he had two spasms of opisthotonos. The temperature in the evening was 101.8°. Morphine $\frac{1}{4}$ gr. was ordered to be given alternately with the chloral. He had one bad attack of opisthotonos during the night, and on September 5th the temperature was 101.8°, and the pulse 120. At 10.45 half a tube of Tizzoni's antitoxin dissolved in 22 c.c. sterilised distilled water was injected by seven punctures into the abdomen and thighs, under strictest aseptic precautions. No pain was felt. At noon he had a very bad attack, after which the temperature was 104.2°; he became very collapsed, and the extremities cold. Hot bags were applied, and brandy $\frac{3}{4}$ ij administered by the rectum. At 4 P.M. he had another tetanic spasm, under which he sank.

In this case hydrophobia suggested itself; but the early appearance of trismus, the absence of delirium, and the fact that the dog is now—six weeks afterwards—quite well put it out of court.

Only three days elapsed between the injury and onset of symptoms. This seems to be a very important factor in prognosis. I have had 3 cases under my care, exclusive of this one; 1, with an incubation period of five days, died; the other 2, with seven and ten days respectively, recovered. All were treated with large doses of chloral hydrate. The shortest incubation period in any case of Tizzoni's that I can find is six days.¹ Owing to unavoidable delay in procuring the antitoxin, it had to be used at a comparatively late stage. It must apparently be used from the beginning and in large doses to be of use.

A point of practical importance is the difficulty in dissolving the dried serum, which with cold water takes nearly half an-hour, a period which affords considerable risk of aerial contamination. The "directions" given with the antitoxin say that it "decomposes under a temperature even a little elevated." But the normal temperature of the horse is not under 101° F. I see no reason, therefore, why fairly hot water—say at 98° to 100°—should not be used, with which it is reasonable to suppose solution would be more readily effected, and one difficulty in the administration obviated.

THE INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH.

THE annual meeting of the above Society was held at the Holborn Restaurant on October 19th. The retiring President (Dr. Woodforde) occupied the chair, and a large number of Fellows and Members were present.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing year:—
President: Dr. S. R. Lovett, Medical Officer of Health for the St. Giles District and Lincoln's Inn. *Treasurer:* Dr. W. H. Kempster. *Editor:* Dr. Arthur Newsholme: *Hon. Secretaries:* Drs. J. C. Thresh and Reginald Dudfield. *Hon.*

¹ Med. Annual, 1894, p. 538.

Solicitor: Mr. Henry C. Jones. *Auditors:* Dr. E. Gwynne and Mr. T. P. Scrivener. *Council:* Drs. F. J. Allan, Alfred Ashby, G. P. Bate, H. L. Bernays, A. Wynter Blyth, Sir Charles Cameron; Drs. W. Collingridge, G. H. Fosbroke, E. Gwynn, A. Bostock Hill, T. Eustace Hill, C. S. Hall, H. H. Littlejohn, B. H. Mumby, C. E. Paget, H. W. Roberts, E. Seaton, W. R. Smith, W. N. Thursfield, W. Verdon, B. A. Whitelegge, F. P. Wightwick, and G. Wilson.

REPORT OF COUNCIL.

The report of the Council stated that 56 Fellows, 15 Members, and 8 Associates had been added to the roll during the past year. One new Branch, namely, the Home Counties, had been formed, making seven Branches. The subjects discussed during the year included "The Local Government (England and Wales) Bill," "The Tenure of Office of Medical Officers of Health," "Annual Health Reports," "The Dissemination of Disease by Vagrants," "Vaccination and the Laws Relating Thereto," "Death Certification," "The Training and Qualifications of Medical Officers of Health," and "The Etiology of Puerperal Fever." Dr. Wightwick, the senior Honorary Secretary, had tendered his resignation on account of the exigencies of his private practice. The Council acknowledged the obligations of the Society to the Editor (Dr. Newsholme), the Honorary Solicitor (Mr. Henry C. Jones), and the other officers of the Society. The Treasurer's balance-sheet showed that the financial position of the Society continued to be satisfactory.

INSTALLATION OF NEW PRESIDENT.

The retiring President (Dr. Woodforde) introduced his successor, Dr. LOVETT, who, on taking the chair, thanked the members for the honour they had conferred upon him, and said he would do his best to show them that their confidence had not been misplaced.

VOTE OF THANKS TO RETIRING PRESIDENT.

A vote of thanks to Dr. Woodforde brought the meeting to a close.

DINNER.

The Fellows of the Society and their friends afterwards dined together.

CYCLING AND ITS DANGERS.

By NOBLE SMITH, F.R.C.S.Ed.,
Surgeon to the City Orthopædic Hospital.

THE discussion which has recently taken place at the Paris Académie de Médecine, as reported in the BRITISH MEDICAL JOURNAL of September 29th, refers in the first place to sudden deaths occurring to individuals past middle age, or at least considerably beyond the age of youth, the ages being 40, 48, and 65.

It is, perhaps, hardly possible to state a particular age at which the human frame ceases to be able to bear sudden strains upon the heart, because this will depend greatly upon the habits of life and physical condition of the individual. We know full well that many men retain their active habits and apparently to a great extent their elasticity of tissues until quite an advanced age. We should rather separate the more active men from those who have led sedentary lives and who take up cycling as an exercise in middle life or even in later years. The question as to whether cycling is desirable for these latter or not depends, I believe, entirely upon the manner in which it is carried out. It seems almost obvious that, if the rider is contented to progress sufficiently slowly, the exertion must be less than walking, assuming that a good road is available. The danger is that the rider is led to attempt more than is judicious. It will, perhaps, best explain the points to which I allude by stating a case.

A gentleman, aged 45, who had led a tolerably active life, although during recent years he had been much restricted in his opportunities for active exercise, commenced to ride a tricycle five years ago, and has continued with certain intervals to ride one ever since. So long as he selects fairly good roads, avoids wet weather—which, as every cyclist knows, increases the exertion very greatly—takes his hills very quietly, does not much exceed six or seven miles an hour on a level road, he feels very greatly benefited by the exercise. He returns

home after a ride of from ten to fifteen miles—or from twenty to twenty-five with intervals for rest—manages to get home in a state of considerable perspiration, has a warm bath, complete change of clothes, and feels for the time in perfect health. Upon many occasions he has exceeded these rules, endeavouring to increase his pace, straining up severe hills, or riding hard against wind and in wet weather, and has felt great depression in the region of the heart; has arrived home thoroughly exhausted, and sometimes has not recovered himself for more than an hour afterwards. Upon one occasion his condition was quite critical after riding about eight miles upon a wet day, being in a great hurry to get to the end of his journey to avoid a thunderstorm.

He has now learned to take his exercise with discretion. He looks upon cycling as the most health-giving occupation that he has ever taken, although he hunts regularly and has been in his younger days an amateur athlete and a winner of racing prizes.

For young people the many advantages which cycling possesses have been so often recorded that it is hardly necessary to describe them here.

The point upon which my opinion has been chiefly asked has been with regard to the effect of cycling upon the figure of the rider. The posture which Monsieur Verneuil refers to as “deplorably anti-physiological,” is one which is not only undesirable, but which need never be assumed, except perhaps for racing purposes. Upon the contrary, I have recommended tricycling to patients who suffer, or have been suffering, from curvature of the spine. I have also advised its use in cases of weakness of legs in young people, where it has been desirable to give exercise, while taking the weight of the body from the legs. In knock-knee cases particularly I have found this exercise useful, but have always insisted upon the construction of the machine allowing the handles to be brought sufficiently high and sufficiently near to the rider to obviate the tendency to stoop forwards. The want of this arrangement is the fault of most machines, and I have had to get the makers to provide the necessary alterations before I have considered the machines suitable.

To sum up: I would urge that cycling, if used with discretion, is one of the best methods for physical exercise we possess, and I have endeavoured to describe in a few words the points of chief importance with regard to the exercise of that discretion. The pace I have mentioned above (six to seven miles an hour) as suitable for the elder riders, might be safely increased on a bicycle, but in any case the rider must be guided by his own sense of what he can do without strain or undue fatigue. Pneumatic tyres and pneumatic seats will lessen jars, and the recently invented sliding seat seems likely to relieve strain by overcoming the dead points.

HYPNOTISM AND HYSTERIA.

THE dull season has so far been unusually dull this year. The rain has spoiled the gigantic gooseberry, the sea-serpent has been unusually shy, Dr. Luys strange performances at La Charité and comical confidences to reporters are now recognised as exploded nonsense and attract little attention, and even the murderer has failed to come up to any decent standard of sensationalism. In the dearth of materials for “copy,” able editors have been fain to fall back on hypnotism, which seems to be the last refuge of the destitute “descriptive reporter.” At any rate, it is only thus that we can account for the amount of space that has recently been devoted in some of our leading newspapers to the death of a hysterical girl while in a condition of “hypnotic trance,” and to the alleged attempt of a young doctor to secure for himself “a lass wi’ a tocher” (as the Scotch song has it) by the aid of hypnotic suggestion. Both these cases are reported from Hungary. The young lady who is said to have been killed by hypnotism was a Fräulein Ella von Salomon, of Castell Turecz, near Nyiregyhaza, who, according to the original statement, was hypnotised by a non-medical hypnotist named Neukom, and while under “influence,” described the condition of the lungs of a person suffering from advanced phthisis, with full details, expressed in technical language. After this deliverance, she uttered a

piercing shriek, and fell down dead. This scene was said to have occurred in the presence of a large number of persons, at least one of whom belonged to the medical profession. Herr Neukom has since, however, denied that the girl was hypnotised by him at all; his version of the facts, as far as we understand, is that the performance was about to begin when the girl, who was in a state of considerable excitement, suddenly died. There is no doubt whatever about the death. The poor girl was duly buried, but the police authorities, feeling some curiosity as to the cause of her death, had the body exhumed. A *post-mortem* examination made by one of the assistants in the department of Pathological Anatomy at Buda-Pesth revealed a high degree of anæmia with consequent malnutrition of the cerebral substance, with signs of serous soakage, but no growth or tubercle in the brain. The girl was hysterical, and apparently anxious to pose as a “telepathic” phenomenon of the order in which Mr. Myers, Mr. Padmore, and Mr. Stead and their friends find so much to amuse what they are pleased to call their minds and form the subject of their farcical investigations.

The “mystery,” therefore, resolves itself into the death of an anæmic hysterical girl under circumstances tending to cause unwholesome excitement—a sufficiently sad occurrence, no doubt, but one hardly warranting the absurd fuss that has been made about it. Of the more occult elements in the case we need say nothing more than they are of the stuff hypnotic dreams are made of. That a person knowing nothing of medicine could see as in a vision and describe in technical terminology a diseased lung in a patient hundreds of miles away—*credant* Kraft-Ebing and the editor of *Borderland*. The case is only one more illustration of the danger of such “experiments” on persons whose nervous system is morbidly excitable. The hypnotiser in such cases is like a mischievous child playing with the complex machinery of a modern battleship. The other case to which we have referred, if there be any truth in it, illustrates another side of hypnotism, namely, the possibility of its being used for fraud. Here again there is nothing more mysterious than the “suggestion” of the three card trick and other dainty devices familiar to those whose altruistic feeling extends only to an interest in their neighbour’s goods. Hypnotism, we are solemnly assured, is “on its trial.” For our part, we have no hesitation in saying that it has been tried and sentenced by all those really competent to form an opinion. At its best it is superstition working on a ground substance of hysteria; at its worst it is a humbug and a fraud of the most ignoble kind.

When hypnotic phenomena are examined by the “dry light” of science—which may sometimes with advantage be reinforced by the “bull’s eye” of the policeman—it will be found that they are the offspring of disease or imposture or a mixture of both these ingredients. They can be summed up in the pithy verdict of a medical commission which had to report on some cases of supposed demoniacal possession among a few crazy nuns in a French convent in the seventeenth century, *Nihil a demone; pauca a morbo; multa ficta*. This judgment with the necessary modernisation of the term “demon” may be applied to hypnotism.

OPENING OF THE MEDICAL SCHOOLS.

GLASGOW.

University Degree Examinations.—Lady Graduates.—New Professors.—Queen Margaret Hall.—Extra Mural Schools.

THE medical degree examinations at the University have just been concluded. For the first professional examination 180 candidates entered, of whom 15 were women candidates. Of these 75 men have passed in one or more subjects, and 12 women. There were besides 19 male and 1 woman candidates under the old regulations. Of these the lady and 7 of the male candidates have passed. For the second examination a total of 59 candidates entered, of whom 3 were women candidates. The latter have all passed; and of the men 27. For the third professional the candidates numbered 142, of whom 7 were women candidates. The passes numbered 93, of whom 3 were women.

In November the University will for the second time confer the degree in Medicine and Surgery upon two ladies, students of Queen Margaret College.