title is conferred upon a physician, as when it is conferred upon a private individual.

Silver Jubilee of Prof. B. S. Schultze.—The pioneer of gynecology in Germany is celebrating this year his silver professional jubilee. The list of his works and articles on subjects connected with obstetrics and gynecology includes 139 titles. His large work on the "Treatment of Alterations in the Position of the Uterus" has been translated into several languages, and investigation by combined bimanual examination which Schultze and Hegar inaugurated, opened a new era in gynecology. He also called attention to the benefits of laminaria, and of exploratory tamponing for the detection of chronic endometritis with slight secretion. His "Manual of Midwifery" is in current use as a text-book in Russia, Spain, Italy and Roumania, as well as in Germany, where the twelfth edition has recently appeared. Schultze's name is best known, however, by his method of resuscitating apparently still-born infants, which is generally recognized as the most effective and most harmless method yet devised, as E. Fraenkel states in a review of his professional career, published in the last *Deutsche Med. Wochenschrift*. His father and older brother were both professors of anatomy.

LONDON LETTER.

Outbreak of Smallpox in London.

After enjoying practical immunity from smallpox for several years a severe outbreak has occurred. A week ago there were 15 cases on the hospital ships; now there are between 60 and 70. The outbreak has practically developed within the last seven days and so far has been confined to the northwestern district. Thirty cases have been notified in three days. The medical officers of health are taking every precaution to hunt up the cases and by careful disinfection to prevent the spread of the disease. In connection with this, as with a previous outbreak, the fact has become apparent that comparatively few medical men are competent to diagnose smallpox in its earliest stage, because the disease has become so rare that most of them have never seen a case. There has been only one death, and the outbreak is judged to be very mild. London is not regarded as a place of origin of smallpox and it is believed that this outbreak will be traced to some external source.

Koch Criticised.

A good deal of adverse criticism has been showered on Professor Koch since the Tuberculosis Congress. At the autumn conference of the Sanitary Inspectors' Association, which has just been held, Sir James Crichton Browne read a paper on "Tuberculosis." He said that the sound of Dr. Koch's voice had hardly died away in St. James' Hall when Lord Lister uttered words of protest. Since then there had been a steadily rising tide of opposition and a growing accumulation of evidence against Koch's doctrine. This great Nestor was premature in his announcement and unfortunate in the choice of an opportunity. The question would, he had no doubt, be settled by a government inquiry. Meanwhile, it would be wise for sanitary inspectors to act as if Koch had never spoken.

Prevention of Lead Poisoning in Pottery Glazing.

According to a report made to the government by Professor Thorpe, the use of raw lead compounds in glazing pottery is no longer necessary, and this source of lead poisoning can be eliminated. Fritted lead, which is produced by fusing silica or other material with raw lead so as to form a definite compound—silicate or boro-silicate of lead—answers all purposes. "Fritts" may be soluble or insoluble in acids. The former are little less poisonous or soluble than raw lead itself; the latter are almost innocuous. The proportion of lead in fritts may vary widely—from 15 to 55 per cent.—without any increase in the solubility of the lead. Thus, manufacturers of pottery have a considerable margin of choice in innocuous compounds. In 1899 special rules were proposed by the Home Office: 1, that lead shall be fritted; and 2, that the fritt shall be practically insoluble in acids. A maximum solubility of 2 per cent. was suggested. The manufacturers objected and complained that they were asked to accept conditions "never before employed by any potters in the world." But Professor Thorpe points out that this standard is reached without difficulty in large works abroad. Here as in other matters the unreasonable conservatism of the British manufacturer is the obstacle. But without doubt the result of this report will be that Parliament will compel him to use only fritted lead in glazing.

Paralysis after Dislocation of the Shoulder.

At the polyclinic, Mr. Hutchinson showed the following remarkable case: The patient was a boy, aged 16, who six

months previously was caught in machinery and sustained a subcoracoid dislocation of the shoulder, which was reduced about two hours later without difficulty. Loss of power in the arm followed, from which he was slowly recovering. Three months after the accident there were anesthesia of the ulnar side of the hand involving the little and ring fingers, hyperesthesia in the median area, over-extension of the metacarpophalangeal joints and flexion of the phalangeal joints, paralysis of the ulnar interossei, inability to flex the fingers or bring them together, wasting of the thenar and hypothenar eminences, and inability to oppose the thumb to the finger-tips. Passive movement and massage were used. When the patient presented himself at the clinic there were almost complete paralysis and loss of sensibility in all the structure supplied by the ulnar nerve. The fingers were flexed on the palm but could be extended. The wrist was in a condition of partial drop but could be extended at will, though only feebly. Movements of elbow were free but flexion was accomplished almost entirely by the supinator longus, which was large and vigorous, the rest of the forearm being wasted. The triceps was also vigorous, but the biceps and trachialis anticus were very weak and atrophied. Sensibility was present in all parts except in the area of the ulnar nerve, but probably it was below normal everywhere. The muscles of the upper arm were weak, except the triceps and shoulder muscles.

Mr. Hutchinson pointed out that nothing in direct connection with the dislocation would explain the paralysis. Rupture of the circumflex nerve and paralysis of the deltoid sometimes occurred, but so long as the clavicle remained intact it was extremely improbable that the brachial plexus as a whole could be injured. He inquired minutely as to the nature of the injury. The lad said that a revolving wheel seized his coat and dragged on his arm and struck it with considerable force in the upper third on the inner side, where a large bruise followed. Mr. Hutchinson concluded that the nerve trunks in the upper arm were severely bruised, the ulnar nerve being almost disorganized, and the musculo spiral nerve being struck after it gave off its branch to the supinator longus. The incompleteness of the paralysis and the steady progress towards recovery fitted well with this suggestion. He referred to more or less similar cases of paralysis of the nerves of the arm after dislocation of the shoulder which had been recorded by Duchenne. But this writer gave no details of the nature of the injury which caused the dislocation, and though he was aware of the difficulty of explaining the paralysis and quoted Malgaigne as to the impossibility of injuring the brachial plexus by a dislocation of the shoulder, he suggested no alternative hypothesis.

Eradication of Rabies from England.

According to the government report recently issued, "During 1900 no case of rabies was confirmed in England or Scotland, and it may be stated with some confidence that the disease which has been present for so many centuries has been eradicated." During the last four years rabies has been confined to the Welsh counties of Brecon, Caermarthen, and Glamorgan, in which six cases in dogs, four in cattle and one in a horse occurred. Credit for this splendid achievement is due to Mr. Walter Long, minister for agriculture, who has enforced an order for muzzling dogs in the face of much opposition. The gratitude due to him and the veterinary department is more apparent when it is remembered that in France 2000 to 3000 cases are annually reported, and that in Italy nearly five times as many cases were declared in 1900 as in 1899; that in Belgium the disease is on the increase; that in India and America it is still present.

Plague.

At the Cape, for the week ending August 17, only 3 fresh cases were recorded, 2 in colored persons and one in a native. The total cases up to August 17 were as follows: Cape Peninsula 357, Port Elizabeth 18, and all other places 2.

Correspondence.

The Septic Tank.

VANCOUVER, B. C., Sept. 14, 1901.

To the Editor:—In your issue of August 24, you refer to the sewage disposal at Stratford, Ont., which I understand is by means of the septic-tank system. Your remark that this is the only system of its kind in Ontario, and probably in Canada, is not quite correct, for I am sure that the city of Van-

couver, B. C., was the first to introduce it into the Dominion. The septic-tank system has been in operation in Vancouver for six months and is giving the very best satisfaction. The neighboring city of Victoria is also installing it, and Seattle, Wash., is observing its operations closely with the view of adopting it in the near future, if in further time its success is fully demonstrative, which I think is certain. So many inquiries have been made at the City Hall here about the workings of it that our city engineer, Col. T. H. Tracy, has not time to answer them all, and has published the following pamphlet on the subject:

THE SEPTIC TANK.

The economical disposal of sewage is a problem which has engaged the attention of engineers and scientists for a great many years with varying results.

Sand filtration, sewage farming, chemical precipitation, bacterial filtration are the most notable processes tried and found wanting. The objection to each of these processes are briefly as follows:

Sand Filtration, continuous or intermittent.—The area of suitable sand ground required is usually difficult to obtain in the neighborhood of a city, and if obtainable the elevation or position is such as to necessitate pumping and consequent continuous expense.

Sewage Farming is growing into disuse for principally the same reasons.

Chemical Precipitation is expensive, both on account of the cost of the chemicals and handling and also the dealing with the "sludge" which is produced in excessive quantity. The effluent is also liable to become offensive.

Bacterial Filtration.—Considerable success has attended this method of treating sewage, but taken alone there are objections to it. In treating raw sewage the filters become clogged and require to be of considerable size and consequently expensive construction.

Septic Tanks.—The most effective method of treatment of sewage so far known is the Septic Tank, either used alone where the discharge is into salt water or where a high degree of purification is not necessary or in conjunction with bacterial filters where the effluent must be comparatively pure. The tanks are usually constructed of concrete, arched over and of a capacity equal to 18 to 24 hours' flow of sewage with a depth of about 5 feet, the inlet and outlet pipes being turned down to a depth of about 18 feet below the surface, so as to leave the scum, which forms on the surface, and in which the bacterial action is carried on, undisturbed. After the tank has been in use about a week a brown scum forms on the surface, which gradually increases, until the full action is attained. In this scum the action of what are known as anaerobic bacteria goes on, the greater part of the sewage being liquefied and a very small deposit resembling black ashes being deposited: that about 90 per cent. of the organic matter in suspension and about 30 per cent. of that in solution are removed and that the deposit does not require to be removed for several years. The practical result undoubtedly is that the offensive matter of the sewage is destroyed and the effluent is sufficiently clear for discharging into salt water or where a high degree of purification is not necessary.

Where discharged into a running stream or where greater purification is desirable a small bacterial filter or set of filters may be added. In such a case much smaller area of filter is necessary than if filters alone are used, as the effluent from the septic tank will go through at least four times as fast as the raw sewage, and the filter beds are not liable to be clogged.

The Vancouver Septic Tanks are three in number, designed for populations of 5000, 3000 and 2000, respectively, and were constructed in 1900 from plans furnished by the Septic Tank Syndicate, the first being put in operation about Jan. 1, 1901, and the others a month or two later. The results so far (August) are quite satisfactory, though the quantity of sewage passing through is not such as to make the conditions most favorable for the development of bacterial action. In one of the tanks near the Crematorium the scavengers have been dumping night soil to the extent of five or six loads a night, and, though the last tank to be put in operation, the effluent is the clearest.

There have been no analyses yet made, either of the sewage or the effluent, but the practical effect of the bacterial action is very apparent. There is no smell from the tanks or the effluent. The earth has been filled over the tanks, leveled and seeded, so that the appearance of the surface is not unsightly or offensive in any way.

Some slight changes have been made in the plans furnished by the Syndicate; in order to avoid the use of wood covering for the inlet and effluent channels the concrete walls having been continued up and arched over, leaving only the necessary manholes appearing on the surface.

The above is a report I obtained to-day from our city engineer. Yours respectfully, W. J. McGUIGAN, M.D.

Value of Rest in Pulmonary Tuberculosis.

COLORADO SPRINGS, COLO., Sept. 13, 1901.

To the Editor.—A very interesting letter from Dr. Chas. Denison appears in the columns of THE JOURNAL, of August 31.

It seems to me, however, that he, as well as many others who speak of the treatment of pulmonary tuberculosis, voices a deeply-rooted error when he says in the concluding paragraph of his letter "they are all coming around to the same belief . . . namely, pure air and an *active* (italics mine)

outdoor life in that climate where it can be had the easiest and most comfortably."

Having myself been the victim of pulmonary tuberculosis for more than seven years' past and becoming thereby deeply interested in all that pertains to the therapeutics of this disease and watchful of all procedures for its amelioration in others as well, I feel that the subject of exercise in this condition ought to be settled without much difficulty. In no other form of tuberculosis is an active functioning of the part affected permissible. In tuberculosis of hip, knee, spine or any other joint, rest is of prime importance. In glandular tuberculosis anything like massage is contra-indicated, and who would be daring enough to advocate systematic thinking as a therapeutic measure in tubercular meningitis?

If once a clear conception of the difference necessary in outlining treatment for those predisposed to tuberculosis and those who already have it actively present is grasped, I believe the present haziness on the subject of exercise will disappear.

As a prophylactic measure in those who by reason of inheritance, environment or poor anatomic development are predisposed to pulmonary tuberculosis, exercise of the chest and lungs is of undoubted advantage. When, however, an active process is present in the lungs the quieter such organs can be kept the better.

Soft, weak muscles are made firmer and stronger by systematic exercise. If such muscles become the seat of an inflammatory action no sane physician would prescribe exercise in any form for them.

I fail to see why the analogy is not fairly applicable to the lungs. If the lungs are sluggish, the pulmonary breath sounds are feeble, especially if the chest is contracted and the family history for pulmonary troubles is bad, by all means prescribe graded and systematic pulmonary gymnastics; but, on the other hand, when tuberculosis has already started in the lungs let us follow the rational methods used for treating tuberculosis elsewhere, by putting the lungs as nearly at rest as possible. I am well aware that not infrequently but one lung is affected, and when this is the case pulmonary gymnastics, while benefiting and strengthening the healthy lung, damages the one that is diseased, and occasionally the benefit is greater than the harm. I am, however, strongly of the opinion that generally in such cases the evil exceeds the good.

Full diet, fresh air, day and night, careful attention to the hygiene of skin and bowels, and rest, including a large amount of sleep (ten hours or more), with occasional counter-irritation to chest and otherwise symptomatic treatment when called for, sums up, it seems to me, what may be termed a safe basis for the treatment of pulmonary tuberculosis.

I may add that these are not merely theoretical considerations but are the results of observations on many afflicted, myself included. Truly yours, W. F. MARTIN, M.D.

A Use for Criminals.

PALMERSTON, ONTARIO, Sept. 20, 1901.

To the Editor.—President McKinley has been laid to rest and his assassin remains to be dealt with by the law as a nuisance to society. Before he is executed might he not be used for some useful purpose? Recent investigations in tuberculosis and cancer, two of the world's greatest scourges, have shown the necessity of the use of a human subject for further research. Already a physician has offered himself as a subject to test whether bovine tuberculosis is transmissible to man. The necessary experiments would not entail any great suffering on the criminal, and public opinion generally would be thoroughly in accord. I can see no objection to this use of desperate criminals. This practice was in vogue when Jenner introduced vaccination to the world, but in the nineteenth century seems to have fallen entirely into disuse. W. R.

Nerve Nostrums and Their Dangers.

SONYEA, N. Y., Sept. 21, 1901.

To the Editor.—The undersigned is preparing a paper on "Nerve Nostrums and Their Dangers," by request of Dr.