woman with a family, whose prospects, as regards relapse, are perhaps least favourable of all. It would seem that sufficient organized effort has not been made in the direction of providing agricultural or horticultural colonies for patients leaving sanatoriums, and especially those who have previously followed an unhealthy trade. There are many difficulties in the way, but it seems a very important adjunct to sanatorium treatment, and, if widely adopted, we should probably hear of fewer relapses.

Lastly, it is of the first importance that "homes" for advanced cases should be provided in all large towns and county districts, where patients may pass their closing days in comparative comfort, and, above all, where they will cease to be a source of dangerous infection to the inmates of their own crowded homes. If this scheme were complete throughout the land, combined with an adequate provision of sanatoriums and colonies for the establishment of health, there is every reason to believe that consumption would be abolished in a comparatively short space of time—a happy result, carrying with it the extinction of much misery and suffering, and, in the long run, proving a considerable financial gain to the country.

In the foregoing observations I am fully aware that there is nothing really new. It is simply the record of five years' experience in sanatorium treatment among the consumptive poor, together with a general review of the question from the unprejudiced standpoint of one who retired from practice fifteen years ago, but who is much interested in watching the developments of a method of treatment the results of which are so infinitely superior to any obtainable during the period he was in active practice.

AN ANSWER FROM THE DURHAM COUNTY SANATORIUM.

By WILLIAM ROBINSON, M.D., M.S., F.R.C.S.,
Chairman of the Committee.

On April 30th last the Committee of the above sanatorium instituted their annual inquiry through Dr. Gray, their medical officer, as to the condition of all the patients who had been treated in and discharged from the sanatorium during the previous five years. The following is a summary of the condition of the patients:

I.—Cases who had, on admission, consolidation only of the lungs—early cases.

In 1900-1 16 cases were treated; 14 were enabled to return to work, and of these 12 are still at work, after more than four years, and 4 are dead.

In 1901-2 30 cases were treated; 23 were restored to work, 17 are now at work, and have been so between three and four years, 5 are at home, and 8 are dead.

In 1902-3 41 cases were treated; 30 had their working power restored, and 23 of these have been following their occupations between two and three years, 4 are at home, and 14 are dead.

In 1903-4 59 cases were treated; 46 were restored to work, 41 are still at work (between one and two years), 11 are home, and 7 are dead.

In 1904-5 75 cases were treated; 57 were restored to work, and all of these are still at work, 15 are at home, and 3 are dead.

Totals.—Of 221 early cases treated, 170 were restored to the ranks of workers, 150 are still at work, 35 are at home, and 36 are dead.

II.—Advanced or cavity cases.

In 1900-1 20 cases were treated, and 9 returned to work; 3 are and have been at work more than four years, 1 is at home, and 16 are dead.

In 1901-2, of 25 cases treated, 12 were returned to work; 4 of these have been at work between three and four years, 4 are at home, and 17 are dead.

In 1902-3, of 38 cases treated, 23 were enabled to return to work, 9 have been at work between two and three years, 11 are at home, and 18 are dead.

In 1903-4, of 39 cases treated, 16 were restored to work, and 10 of these have been at work between one and two years, 7 are at home, and 22 are dead.

In 1904-5 37 cases were treated; 14 were enabled to work, and all of these are still at work, 18 are at home, and 5 are dead.

Totals.—Of 159 cavity cases, 74 were restored to the ranks of workers, 40 are at work, 41 are at home, and 78 are dead.

REMARKS.

Practically all the patients (men and women) belong to the working classes; a very large percentage went back to insubstantial and poor homes, hence relapses, especially among the advanced cases, are common and to be expected; almost all the cases had definite physical signs of lung disease, more than half had disease in both lungs, and many were complicated cases; all but a very few were unable to work on admission. Our great difficulty has been to get working-class patients to apply in the initial stage of the disease, and to find them suitable work afterwards.

The average age of the patients was about 28 years, the average stay in the sanatorium was fifteen weeks, the average gain in weight was about 18 lb., and the average cost per patient per week was approximately 25s.

Our sanatorium has been practically self-supporting from the beginning, and we have enabled the working men of this county to provide for themselves, and those over the age of 15 years depending upon them, sanatorium treatment, should they require it, at the nominal cost of 1s. per year per man.

We are fully satisfied with the excellent results obtained.

DRUG TREATMENT FOR INEBRIETY.*

By J. S. BOLTON, M.D.,
Nottingham.

EARLY in August, 1904, I was asked if I could do anything for a man who was addicted to drinking habits, and was likely to lose his situation on that account. Having read in the *BRITISH MEDICAL JOURNAL* of April 30th, 1904, a paper by Dr. McBride upon the Treatment of Inebriety by Hypodermic Injections of Strychnine and Atropine, I determined to try it in this case. Dr. McBride wisely recommends that patients should be treated in some institution where oversight is possible and attention can be given to food, exercise, and environment. But as this man was unable to pay for such treatment, and wished also to continue his daily work, I decided to attempt to treat him as an out-patient. His history as given by himself is as follows:

I am 45 years of age, a tailor's cutter by trade. My father was a moderate drinker till he was 30, after which he was a total abstainer till his death. My mother was a moderate drinker all her life. I was a total abstainer till I was 20, then a moderate drinker for ten years, at which time I commenced to drink whisky, and this gradually got hold of me till I could not give it up. I can do my work for several weeks, taking gradually a little more liquor, till the mad crave comes upon me, and I throw up all work and have a drinking bout, eating no food, but living on whisky for days. After the bout I am left prostrate with morning sickness, and loathing all food. I should be glad if I could give up the drink, but I am not able. I have tried many times, but it has always ended in failure. I am quite willing to submit to the treatment.

Finding his organs free from organic disease I commenced treatment at once by injecting into the biceps muscle of his left arm a watery solution containing $\frac{1}{10}$ gr. of strychnine-hydrochloride and $\frac{1}{10}$ gr. of atropine sulphate. I also gave him a mixture to take every four hours containing red cinchona bark. I arranged that he should come to my house twice a day for treatment, told him to take as little alcohol as he could, and instructed his wife to give special attention to his diet, feeding him on eggs and milk, soups, cocoa, etc., until he had appetite for solid food.

He took a little stimulant for the first few days, but the desire soon left him, though he did not entirely give it up for about ten days. I soon found that the atropine not only made his mouth dry, but so affected his eyes that it interfered with his work. Dr. McBride keeps a supply of spectacles for his patients. I got over the difficulty by injecting a large dose at night and a small dose in the morning.

Although the atropine made his mouth so dry it did not lead him to take alcohol to moisten it. He drank hop bitters or cold water for that purpose.

After a fortnight's treatment he complained greatly of shortness of breath on the least exertion. This gradually passed off during the next two weeks. His appetite soon returned, and his appearance, which had been that of a heavy drinker, improved remarkably. He told me that "I had taken away one appetite and given him another."

He visited my house twice daily for forty days, only missing once, after which he came once a day, then every second day till October 13th, when I told him he need not come again for

* Notes of a case read before the Nottingham Medico-Chirurgical Society on April 19th, 1905.

treatment, but only to report himself, unless the craving returned, in which case he was to come at once. He told me that he felt well and strong, had no desire for stimulants, but felt that it would be very unsafe to taste any, or the old craving might return.

I saw him again just before Christmas. He was keeping right, but said he did not like to be too confident till the festive season was over. He, however, passed through it satisfactorily. I hear of him now every few weeks, and he is keeping straight.

It is quite evident that under favourable conditions some of these cases can be successfully treated as out-patients by the family doctor if he has sufficient time and patience to give to them.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THE LATE RESULTS OF AMPUTATION OF BOTH LEGS.

THE following notes of the present condition of a man, both of whose legs were amputated by me twenty-five years ago, may be of interest to many readers.

The patient, a dockyard hand, was run over by a train in 1880, and sustained a compound comminuted fracture of both lower limbs. I found it necessary to amputate the left leg a little below the knee, the right a little below the mid leg. For the left stump he was supplied on recovery with an ordinary kneeling peg leg; for the right, a peg leg with leather bucket. He came to see me last month after a long visit to the South Kensington Museum. He had enlarged the tread of his pegs to $\frac{3}{4}$ in. diameter by a round of sole leather backed by an equal-sized disc of indiarubber. At my request he furnished me with some particulars of his capabilities with his two stumps. He can, he said, get anywhere—train, tram, bus, boat, steps, in fact, almost everywhere. As an example of what he could do, he mentioned one out of what he said were common incidents of his life. Commencing in the early morning with a walk of nearly a mile, partly through a market strewn with vegetable litter (which is not the best walking for any one), he entrained at Portsmouth for London, visited Westminster Abbey, the Houses of Parliament, National Gallery, St. Paul's Cathedral, walked to the Tower of London, thence by underground train to South Kensington for Imperial Institute, thence by train to the Earl's Court Exhibition. At all the places mentioned he saw all that was permissible, ascending and descending all stairs unaided, and returned home the same night. The first year the Tower Bridge was opened, he ascended and then descended the stairs of one of the towers of that bridge without assistance. He tricycles, and takes long country walks over fields and sands. Obviously the man's power of locomotion is very complete, and, in view of the severity of the anterior accident, somewhat noteworthy. He is willing to be inspected by any professional man who may desire to do so.

A. TURNBULL, M.D., R.N.,
Late Inspector-General Royal Navy.
London, W.

TETANUS TREATED BY ANTITETANUS SERUM: RECOVERY.

ON February 28th a boy aged 3 years and 4 months, son of a gardener, was brought to me suffering from a crush of the last joint of the middle finger of the left hand. The finger was washed carefully in perchloride solution and dressed with cyanide gauze. On March 10th I found that the tip of the finger had sloughed; it was removed, and the stump dressed as before.

On March 13th the wound appeared quite healthy, but on March 14th, his mother tells me, the child was fretful, refused food, complained of his throat, and passed very little urine. When putting him to bed she noticed his neck was stiff, and later on there was some stiffness of the left side, especially the hip, which prevented him from sitting up. During the night he did not sleep, cried out frequently, and had some convulsions; when lifted the left side of his body was observed to be rigid. On the morning of March 15th his head was retracted and the muscles of his back affected.

I was called to see the child in the evening, and found him lying in bed stiff, with marked trismus, and the head much retracted; the least touch set up spasms affecting the whole

body; sweating was profuse after each spasm. The temperature was 100° F., and the pulse 120. My partner, Dr. Green, saw him with me, and we decided to amputate the finger at the interphalangeal joint; this was done at 6 p.m. Potassium bromide gr. ijss, with chloral hydrate $\frac{1}{2}$ gr., was ordered to be given every hour with egg and milk. During the night he had six or seven violent spasms, and frequent twitchings of the arms and legs at intervals between the spasms.

On March 16th antitetanus serum, 10 c.cm., was injected under chloroform. The spasms were less violent; nourishment was taken every hour in small quantities. The convulsions became more severe again about 9 p.m. The dose was increased to—potassium bromide gr. iv, chloral hydrate gr. j, every hour. On March 17th the temperature rose to 102° F. in the morning; the patient was very drowsy, the spasms fewer and less violent; serum 10 c.cm. was again injected under chloroform. The progress was satisfactory till the evening of March 19th, when violent spasms occurred. At 10 p.m. serum 10 c.cm. was injected under chloroform. Slight spasms occurred during the next day (20th), but more violent at night, when a bromide rash was also noticed. Sulphonal gr. j was substituted for the bromide and chloral.

Since then the recovery has been uninterrupted, though occasional twitchings in the limbs and severe cramps at night continued till April 3rd. The patient first took solid food on April 5th, and began to move his limbs voluntarily. On April 12th he sat up in bed, and on April 27th was able to walk a little, though a slight stiffness in the hips was observable.

Weymouth.

JAMES MILLER, M.B., Ch.B.

A FACTOR IN SEA-SICKNESS.

IN all that has been written about the treatment of sea-sickness no mention has been made of congestion of the liver, which seems to me an important factor. After two years' seagoing practice I have come to the conclusion that sea-sickness is much aggravated and prolonged in people suffering from hepatic congestion or biliousness. Most writers have dismissed this subject after ordering a mercurial purge, followed by a saline as routine treatment prior to administering cerebral depressants on an empirical basis.

I have frequently observed that where fine weather has been experienced for the first two or three weeks of a voyage, followed by a little rough-and-tumble, sea-sickness comes on sooner, is more distressing and prolonged than when the voyage is begun in rough weather. This I have always attributed to the hepatic congestion set up by the over-eating, excessive sleeping, and lack of exercise so general among passengers, especially so when the voyage begins with fair weather. Sluggishness of the portal system is one of the attendant results and troubles of a sea trip to those who are not warned in time.

As to treatment, by experience I have found the exhibition of calomel gr. $\frac{1}{4}$ to gr. $\frac{1}{2}$ every hour until a grain has been taken, followed by a saline, is the best way of ameliorating sea-sickness—I do not say cure, as I firmly believe there is no specific cure for a condition which has such a varied etiology. The causes of sea-sickness are psychical as well as physical, evidence as to the latter pointing to the cerebrum as being primary, and other organs only secondary, in producing this condition. As to psychical causes, cases are known of sea-sickness occurring shortly after going on board a vessel, before she is under way even; also those cases which occur when the vessel enters a locality notorious for bad weather, such as the Bay of Biscay, Great Bight of Australia, etc., quite regardless of the state of the sea at that particular moment.

In conclusion, I thoroughly endorse the remarks of Surgeon Metcalfe Sharpe, of the R.M.S. *Utonia*, published in the BRITISH MEDICAL JOURNAL of May 20th, on the acidity of the vomit and danger of pushing cerebral depressants.

R.M.S. *Orontes*. A. VAVASOUR ELDER M.R.C.S., L.R.C.P.

INTERNATIONAL CONGRESS OF HYDROLOGY.—The seventh International Congress of Hydrology will be opened at Venice on October 10th under the presidency of Professor De Giovanni, Senator of Italy. In connexion with the Congress there will be an exhibition of waters and hydrotherapeutic appliances.

CHOLERA INSURANCE FOR MEDICAL PRACTITIONERS.—The Russian Government has established a system of life assurance for the benefit of the medical practitioners employed in fighting the cholera in Minsk. The amount payable at death from cholera is, in the case of qualified medical men, £800, and in that of medical students £500.