MAKING THE BLOOD-COUNTS.

In counting the blood-corpuscles the blood was taken from the ring-finger of the left hand which was held firmly for a few seconds to produce a slight congestion and pricked with a fine needle sufficiently to get a good drop of blood. It was diluted two hundred times with the following solution :

Sodii sulphatis	gr. civ.
Acidi acetici	3i
Aquæ dist..	3iv. M.

This was found much better than the five-tenths-per-cent. salt solution which is recommended. It has the great advantage of making the white corpuscles appear very refractive, so that the presence of one corpuscle in a field of red can be detected at a glance. This is of the greatest value in searching large areas while estimating the number of white corpuscles.

We counted the red corpuscles in one hundred of the small squares, selecting twenty-five squares in four different parts of the slide where the globules were most evenly distributed. In order to avoid counting any of the globules twice, those on the upper and left-hand lines of the squares were counted, while those on the lower and right-hand lines were not.

All of the four hundred squares on the slide were searched for white corpuscles. In addition to this, following a suggestion of Dr. Richard Cabot, we estimated the number of squares which were included in the field of the microscope, and then, by moving the slide out in various directions from the centre, we could determine the number of white corpuscles over a considerable area outside of that which is marked off. In this way the equivalent of four thousand squares can be counted. Inasmuch as in a normal case there will only be three or four white corpuscles in the whole four hundred squares, the source of error is very great, and it is important to count a larger area.

The mixer was cleaned by washing, three times each with water, absolute alcohol and ether. To blow out the tube we used the compressed air which is employed by the throat specialists. The convenience of this method will be appreciated by those who have ever gone through the tedious process of blowing out the tube with the mouth. The bulb of the thermocautery can also be used, or even a Davidson's syringe; but neither of these are as good as the compressed air.

In some of the more severe cases of anemia we noticed marked changes in the appearance of the red corpuscles, and especially in their refraction. These changes have, in all probability, some significance which a careful observer, making a large number of counts and especially noting these changes, might determine.

Clinical Department.

A CASE OF CYSTIC DISEASE OF THE KIDNEY.¹

BY H. B. MCINTIRE, M.D., OF CAMBRIDGE, MASS.

Wm. J, born in Scotland, age about fifty years. By trade he was a stone and brick mason, until in 1878 he began candle-making, continuing the work until 1888, when he left it to carry on a small coal business and assist his wife in a small-goods store. He was a

¹ Read before the Cambridge Medical Improvement Society.

large and muscular man, but was always a dyspeptic until six months before his death. During these six months, until the last three weeks, he could eat anything without distress, and was unusually well. His dyspepsia was at times associated with severe colicky pains in the epigastrium; and during one of these attacks, he was seen by Dr. J. A. Dow. Dr. Dow discovered a tumor in the left side of the abdomen. This was probably about two years before death. Not long after, he was first seen by me during one of these attacks of pain. The tumor was readily made out. This attack was similar to previous ones, and after two or three days in bed he was able to return to work. Again, in about a year, I was called, and found an effusion of blood in the leg, extending from the knee to the foot, probably due to some injury, as the previous day he had been engaged in some work on his knees.

I next saw him on April 23, 1890. He had been in his usual health since my last visit. On the day before, he had walked a great deal, and now had a swollen and painful ankle, and was covered with a pustular eruption (porrigo?). The rheumatism disappeared in a few days, and he was able to be about.

He again sent for me on May 3d, and stated that he was not getting his strength as he thought he should, nor was he able to sleep as formerly. Upon questioning him, I found that for months he had been very sleepy, never sitting down for five minutes without falling asleep. There was slight swelling of the ankles, which first appeared with the rheumatism; there was also some puffiness under the eyes. The tumor in the left side had increased very much in size since first found, some two years or more before, and now crowded the intestines well over to the right. About two quarts of urine were passed in the twenty-four hours, of a specific gravity of 1,014. This contained a large trace of albumin, but no casts could be found. There were a few pus-corpuscles and epithelial cells from the bladder. From this time until the 11th, there was no decided change. The quantity of urine remained about sixty ounces in the day, the patient being about the house and out of doors.

On the 11th, I was called in the evening, and found him looking very ill. He was restless and excited. He complained only of his throat; this was very painful, and he swallowed with much difficulty. There were slight signs of inflammation, a little redness and some swelling of the uvula. He had slept poorly for several nights.

On the morning of the 12th he was about the same. The urine had a specific gravity of 1,010, and contained a large trace of albumin; no casts could be found. That night he had a severe headache, was delirious and sleepless. At nine the following morning I found him comatose; at ten he had a convulsion, which was followed by a second at eleven, in which he died.

An autopsy was made by Dr. Holt. Upon opening the abdomen a tumor was brought to view occupying nearly all of the left half of the abdominal cavity, and was at once recognized as a cystic kidney. The weight was over eight pounds; and it was found to consist entirely of cysts of various sizes, filled with an amber-colored fluid. Not a trace of normal kidney tissue could be seen. Upon pressing the intestines to the left, the right kidney was brought to view, which was similar in every way to the left, weighing

but one pound less. The two filled an ordinary water-pail. The other organs, so far as examined, were normal.

DISCUSSION.

DR. MCINTIRE remarked that there was very little written upon this subject, and that the most he found was in Roberts's text-book. Four varieties of the disease are found: one of congenital origin; another where cysts are scattered throughout an otherwise healthy kidney; third, the cystic degeneration of amyloid kidney; and the fourth where there is a general change of the whole kidney into cystic formation, such as he has presented this evening.

DR. VAUGHAN had one case during his service at the hospital—a theological student, twenty-four years old, tall, slight, and of poor health. He had practised medicine for a short time. There was a history of trouble with the urine and of an attack of hemiplegia. He rallied from the latter, and was up and about for three or four weeks, when he had a second attack and died. He had hematuria as a principal symptom, which disappeared during the attack of hemiplegia. Examination of the kidneys after death showed a condition like that described by Dr. McIntire, the whole mass having a honey-comb-like appearance, one kidney weighing six pounds, the other eight.

DR. CURRIE had seen one case, the principal symptom being hematuria, and the course of the disease similar to those already described. The nature of the trouble was not recognized until after death.

DR. A. P. CLARKE had a case in the early part of his practice—a young man about twenty years old, a clerk in Boston. He began to complain of trouble in his back, which grew steadily worse for two years, when he died. The kidneys were covered with large cysts, appearing like great blisters, and on section very little normal secreting surface could be found.

DR. MCINTIRE said that the disease is always bilateral, although it may be impossible to make out both tumors during life, and there is no chance of surgical interference.

Medical Progress.

RECENT PROGRESS IN THORACIC DISEASES.

BY GEORGE G. SEARS, M.D.

Feeble Physiological Respiration on the Right Side.¹

MONCORGE has noted twenty cases, free from all pulmonary disease, in whom respiration was feebler in the right lung than in the left. All of the cases were in the habit of sleeping exclusively upon the right side, and he therefore argues that its cause is found in the pressure exerted upon that lung during the eight hours of sleep preventing its proper expansion. The predominance of women, fourteen of the twenty cases being females, he attributes to the fact that her breathing is chiefly thoracic and, therefore, more seriously interfered with during sleep, while owing to her tight garments this pressure is constant, instead of being partly corrected as in man by the freer movements during the day. Her sedentary life also makes it more difficult for her to compensate by day for the restricted move-

ment of the lung by night. With proper exercises he found it easy to correct this condition.

PULMONARY HEMORRHAGE.²

Gluzinski discusses at length the effects of hemorrhage upon the lung tissue. Clinically it is known that it gives rise to symptoms which can be recognized by physical examination (dulness, râles), which may either altogether disappear after a time, or become chronic, or be followed by an acute process, phthisis florida. In order to determine the pathological changes he made a series of experiments on dogs and came to the conclusion that effused blood in the lungs is by no means harmless. Twenty-four hours later reaction sets in which shows itself in a desquamation of the epithelium of the alveoli and the finest bronchioles and an out-pouring of leucocytes, a peri-bronchitis. About the sixth day the lung becomes atelectatic, the peri-bronchial inflammation is more manifest and sometimes the desquamative pneumonia of Buhl results. In case the lung had been for a long time affected, for example, by adhesions or infiltration, the result would probably be more serious. He describes the conditions which are found in consumptives as a result of hemoptysis and criticizes the usual methods of treatment by rest and narcotics in severe hemorrhages, as having no influence in effecting the removal of a not indifferent foreign body.

THE PNEUMONIC FORM OF ACUTE PULMONARY TUBERCULOSIS.

Fraenkel and Troje report thirteen very carefully studied cases of this form of tuberculosis, all of which occurred in men. In cases which run a very acute course it may not be possible to distinguish it from acute lobar pneumonia, but usually attention to the following points will establish the diagnosis:

(1) That there has been no critical fall of temperature, although the presence of diffuse crepitant râles on superficial observation gives the impression of a pneumonia in the stage of beginning resolution. If a remission of the fever takes place and resembles a crisis, it immediately rises again and progresses with marked variations of no distinct type. At times for several days the inverse type of fever is seen which is frequently noticed in tubercular affections.

(2) The frequent absence of any dyspnea or cyanosis, but a comparatively rapid increase in pallor of face and mucous membranes.

(3) The greenish color of the sputum and the recognition of tubercle bacilli in it. The latter, however, is not always easy, and in case of doubt they should be sought for with redoubled care.

(4) The presence of the diazo-reaction from the very beginning of the disease.

(5) The comparatively rapid loss of strength and deterioration in general condition, which do not correspond with the severity of the other symptoms, notably the absence of dyspnea and cyanosis.

PNEUMOCOCCI IN THE BLOOD.⁴

The presence of pneumococci in the blood has been denied by some observers, while others regard it as a very rare event. Even the latest contributors to the subject, for example, B. G. and F. Klemperer, assert that they are never found there, while Netter, who

² Przegl. lekarski, 25, 1893; Schmidt's Jahrb., 1894, No. 7.

³ Zeitschft. f. Klin. Med., 1894, xxiv, Hs. 1-6.

⁴ Schmidt's Jahrb., 1894, No. 3.

¹ Lyon Méd., No. 16, 1894.