Theile, and Luschka held that the latter form is the only one. There is no mention in modern literature of such openings into the ventricles, but Langer made the discovery, a more curious one than that of the openings themselves, that there had been a lively discussion concerning them in the early part of the eighteenth century. They were described by Thebesius in an inaugural dissertation in 1708, and also by Vieussens in 1715. The observations were confirmed by Winslow and others. Lancisius wrote, in 1739, "*Mihi non amplius fuerit dubitandum, quin lateat intimum commercium venarum coronarium cum utroque cordis ventriculo.*" Other anatomists, among whom was Haller, disputed the matter, and it would seem that the latter side carried the day, for these openings into the ventricles have been forgotten.

Dr. Langer demonstrated these openings in various ways. Air or fluid injected into a cardiac vein appeared on the inside of the ventricles. This method was reversed by placing a tube over one of the pits in the ventricle, and throwing the injection in the other direction. It is to be remembered that there are a great many little blind pouches, which perhaps accounts for the diversity of the views. The minute venous openings, *foramina Thebesii*, are found in all the four cavities. In the left ventricle they are most numerous in the large papillary muscles, in the right ventricle near the conus arteriosus. These little veins have no direct communication with the larger veins of the heart, but may be compared to the intra-lobular veins of the liver, that is to say, each carries off the blood from a small district. They can, therefore, be demonstrated only by a good capillary injection.

THE UPPER AND LOWER BOUNDARIES OF THE PLEURÆ.¹

Dr. Ad. Pansch publishes the results of many observations on this question. There is a good deal of diversity and vagueness in the statements of authors on the first point. We, however, will skip these and come directly to the views of our author, namely, that the upper border of the pleura, which closely covers the top of the lung, usually corresponds with the anterior edge of the neck of the first rib. This has the merit of giving us a fixed point for a guide, which none of those in the front of the chest can be called. The anterior end of the first rib may vary decidedly in its relation to the vertebral column and the clavicle may vary still more. The great objection to this guide is the difficulty or impossibility of finding it in the living. Pansch gives the vertical height of the top of the pleura above the anterior end of the first rib as 3.5 cm. It varies from 2.5 to 5.5 cm. He does not find any regular difference between the right and the left sides. It is more common for the lungs to pass the usual point than not to reach it. The author implies that the clinical statements that the lung rises from three to five cm. above the sternal end of the clavicle cannot be strictly correct. It may be possible to obtain pulmonary resonance on percussion for this distance from the clavicle, but it must be remembered that this line slants upwards and backwards instead of being vertical.

The lower border of the pleural sac, unlike the upper, is in no definite relation to the lower border of the lung, and indeed is always beneath it. According to Pansch the lower border of the pleura usually is op-

posite the middle of the vertebral border of the twelfth rib and extends outwards at first horizontally and then gradually rising till it passed upwards at the front of the thorax opposite the junction of the seventh rib with its cartilage. The pleura is sometimes found to extend much lower, even as far as the transverse process of the first lumbar vertebra. This of course may be of considerable surgical importance.

THE FISSURES OF THE LUNG.²

Dr. J. L. Cilley, of Cincinnati, points out that the main fissure of the lungs is incorrectly described in English works on anatomy. In the last edition of Quain it is said to extend downwards and forwards to the anterior edge. Dr. Cilley continues: "The forty-four cases of the writer did not furnish a single case where the anterior edge was reached. In every case did the so-called upper lobe enter into the formation of the inferior border of the lungs. In only one instance did the fissure approach nearer than three inches to the anterior edge, and then it came within one inch." This point is correctly described in Henle's great work, but, as far as we are aware, in no work which has yet appeared in English.

Hospital Practice and Clinical Memoranda.

A CASE OF DIABETES MELLITUS; RECOVERY UNDER MORPHIA TREATMENT.

BY S. G. WEBBER, M. D., BOSTON.

THE following case, treated at the City Hospital, is of interest because of the presence of cerebral symptoms, showing the gravity of the patient's condition; also because of the speedy relief which followed the strict adherence to a diabetic diet, and the results obtained by morphia.

John C., aged forty years, painter, entered City Hospital December 11, 1880. The history he gave was that during the previous August he suddenly ceased to sweat, and the amount of urine he passed steadily increased up to five to sixteen pints daily. His skin was very dry, but not harsh. During the summer he had been several times greatly overheated. He had slight headache, with considerable dizziness; his eyesight had failed much during the previous six months. His appetite was fair; there was a sensation of heat in the stomach two or three hours after eating, frequently followed by vomiting. He had lost strength and flesh, about fifty pounds in weight. His bowels were constipated, passed urine about every one and a half hours during day and night, and was very thirsty. There was no swelling of the extremities, no cough, no cardiac symptoms.

The urine was pale, acid, 1031 specific gravity. No albumen. Much sugar. Nothing abnormal in sediment.

December 15th he had an attack of dizziness, beginning with discomfort in his stomach, then tinnitus and vertigo, followed by nausea and vomiting. He said he had had six such spells in the last six months. He had another similar attack of much less severity on the 25th.

He was put upon partial diabetic diet, and December 16th upon full diabetic diet. Being a painter, he was

² Contributions to Gross Anatomy, together with some Observations on Abnormalities. The Cincinnati Lancet and Clinic. February 26, 1881.

¹ Archiv für Anatomie und Entwicklungsgeschichte, 1881, Heft 2 and 3.

given iodide of potassium five grains three times daily, upon the possibility that there might be some affection of the floor of the fourth ventricle. If the overheating of the last summer had any ætiological effect the iodide would also have been indicated.

There were no further attacks of vertigo, and on December 28th the patient made the following statement of the improvement he had noticed: Increased appetite. Mouth much less parched and furred. Decrease of thirst. Great decrease of urine. Less pain in back. Some increase of strength. Better eyesight, and a clearing up of the head from the dull, dizzy, and oppressed feeling. Bowels more regular.

During the progress towards recovery he had a few periods in which disturbance of the stomach or bowels, or catching cold, caused an increase in the amount of urine.

January 22d he was given a quarter of a grain of sulphate of morphia twice a day, which was increased to three times a day on the 26th, but was reduced to a quarter again on the 28th, as the larger dose caused pain in the stomach. By mistake the urine was not examined for sugar until six days after beginning the morphia treatment.

The iodide of potassium was omitted February 14th. The morphia was continued until after he left the hospital, was gradually diminished, and finally discontinued without difficulty and without any disagreeable results. After the urine had shown no sugar for some weeks he began to take milk, and when last seen was eating Graham bread, but had not returned to a full diet of starchy and saccharine food. He was seen at intervals for three months after leaving the hospital; the last time he said his urine had not increased above the normal amount, that his appetite was good, his food occasioned no distress; he had also gained very much in weight, was very fleshy, and had the appearance of health.

The following table will show the amount of urine voided, the per cent. of sugar, and some other items of interest:—

Date.	Amount of urine.	Remarks.
Dec. 13	6390 + cc.	7.5 per cent. sugar. Sp. gr. 1030.5
14	4205	
15	3965	
16-19	3000-3460	
20	5260	Had a bad cold. 6.25 per cent. sugar. Sp. gr. 1030.
21	6165	Iodide potassium commenced.
22	3355	
23	2890+	Saponis gr. viii. three times a day.
24-26	2475-2900+	
27	3100	Stomach disturbance. Sol. morph. 3i. one dose.
28-31	2240-2610	
Jan. 1	3805	A cold.
2	2210	
3	2300	2.25 per cent. sugar. Sp. gr. 1026.5.
4-11	2255-2700	
12	2090	
13	3165	Stomach disturbance.
14-16	2540-2995	
17	2045	2.77 per cent. sugar. Sp. gr. 1027.5.
18	2420	
19	2525	Sol. morphix 3ss. Tr. capsici ℥xx.
20	2610	
21	2345	
22	3300	Pil. morphix gr. ½ two times a day.
23	1575	
24	1855	
25	1830	Sulph. morph. gr. ½ three times a day.
26-27	1560-1695	
28	1735	No sugar. Sulph. morphia gr. ½ three times a day.
29-Feb. 5	1880-2225	
Feb. 8, 12, 23 }		No sugar on either date.

The effect of disturbance of the stomach in increasing the amount of urine, and the similar effect of "taking cold," is clearly seen on several dates, the rise being from 600 cc. to 2000 cc.

It may be doubted whether the iodide of potassium was of real benefit; the urine diminished in quantity while he took it, but he was also on full diabetic diet, was confined a part of the time to bed, and had warm sponge baths. The iodide, as stated above, was given because he was a painter, and it was thought the diabetes might be due to lead poisoning; but after taking the iodide no lead was found in the urine.

Dr. Fitz has so lately published his paper on diabetic coma and acetonaemia in this Journal (February 10, 1881) that it is not necessary to refer farther to the cerebral symptoms which were manifested during the earlier days of the patient's stay in the hospital.

The benefit of the morphia treatment, commenced January 22d, was immediately apparent. It is unfortunate that no examination for sugar was made on the 23d. The only inconvenience from the morphia was the production of pain if the dose was taken too soon after eating. The patient was allowed to take it between meals at such a time as should best guard against this discomfort, and doing so no unfavorable symptoms followed. Although for several days he took one third of a grain of morphia three times a day it did not cause sleep nor give rise to unnatural drowsiness, thus illustrating the toleration of diabetic patients for that drug.

Reports of Societies.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

M. H. RICHARDSON, M. D., SECRETARY.

MEETING of May 2, 1881.

DR. D. H. HAYDEN read a paper on

MOVABLE KIDNEY.

which will be found on page 271 of the present number of the JOURNAL.

DR. WEBBER said that eleven years ago he saw at the City Hospital a woman with movable kidney. The right was the one affected, and its mobility was considerable. This last winter he had been greatly puzzled by the case of a man in whom there was a tumor situated just below the liver, and so close to it that it was difficult to say whether it was a diseased kidney or a growth from the liver itself. On further examination a sulcus was found between the tumor and the liver. Though the mass could be moved its mobility was not as great as that of a movable kidney. The urine contained a large amount of blood. The patient recovered from this attack, but three weeks later he had a similar one. He then noticed that the tumor in the right side was larger than before, and somewhat tender. As before, the urine contained blood. Between these attacks of hæmaturia there was nothing abnormal in the urine, neither blood, casts, nor albumen. The man improved in flesh and strength, and went home. Dr. Webber had not been able to make up his mind whether it was a diseased kidney, or one which, from some abnormal position, was subject to periodical attacks of congestion.

DR. MINOT said that movable kidney is not rare.