PART IV.

MEDICAL MISCELLANY.

Reports, Transactions, and Scientific Intelligence.

PROCEEDINGS OF THE PATHOLOGICAL SOCIETY OF DUBLIN.

President—E. H. BENNETT, M.D.

Secretary—JOHN WILLIAM MOORE, M.D.

Embolism of Abdominal Aorta.—MR. THOMSON said: Through the courtesy of Dr. Edward Byrne, physician to the Smallpox Hospital of the South Dublin Union, I have been afforded the opportunity of exhibiting these specimens to the Society. They consist of the heart, a portion of the abdominal aorta and surrounding vessels, and a hernia, taken from the body of a patient who died in that institution in November last. I have been favoured by Dr. Byrne with some notes of the clinical history of the case. The woman, who was aged twenty-eight, was admitted into the hospital on the 2nd of September last, suffering from acute rheumatic fever accompanied by endocarditis. She had a temperature of 104° and was treated with alkalis. The case appears to have gone on without anything very particular to note until the 1st of November, when she awoke in the morning feeling a great numbness in both her lower extremities. On the 3rd of November the right leg was completely restored to sensibility, but the left remained perfectly numb. The limb, on examination, was felt to be quite cold and without sensation, and there was no pulsation in either the anterior or posterior tibial artery nor in the femoral artery. On the 7th of November a bluish tinge appeared in the lower part of the thigh, the line marking the discoloration being half an inch above the patella, and there was some tenderness on pressure. The bluish tinge gradually increased until the 17th, when it had pretty much the appearance exhibited in these plates, for which I am indebted to Dr. Byrne. On the 21st bullæ appeared, and there was considerable fœtid discharge from them. On the 16th of December the patient died. At the time of her admission there was a bruit with the first and second sounds, and a curious friction-sound was noticed at the apex of the heart, and mistaken for pericarditis. At the *post mortem*, which I had an opportunity of making, attention was principally directed to the vascular

system. On opening the thorax a very small quantity of fluid was found in the pericardium, but there was no sign of any pericarditis. The heart was of normal dimensions and thickness as to its walls. On cutting into the left ventricle we found at the apex a mass of yellowish firmly-formed material about the size of a walnut. On attempting to remove it from the heart we found that it was firmly fixed, owing to the formation of the mass having taken place within the muscular columns at the apex of the heart. On the right side of the section we see a very considerable portion firmly wedged in. The aortic valves showed signs of inflammation, but they have unfortunately been removed inadvertently in the preparation of the specimen. In the mitral valves we have still some condition remaining which shows the existence of endocarditis. On the right side of the heart is a clot, but different in its appearance from that on the left side. It is distinctly formed of two materials—one apparently consisting of pure fibrin and the other simply the result of blood-coagulation, either occurring immediately after death or shortly before death. Passing further on, and proceeding to examine the cause of this gangrene which occurred on the left side, we traced the aorta down very carefully to about an inch and a half above the bifurcation of the abdominal aorta, where we came upon a distinct block. I now slit up the aorta and exposed a firmly-fixed mass of fibrin, with prolongations into the smaller arteries. On the left side we have all the vessels blocked up as far as the termination of the femoral artery, and on the right side, extending from the obstruction of the aorta, we have the common iliac blocked for about half an inch, and the external iliac on that side also blocked. As to the structure we have to deal with in this case, I may read to you some notes with which Mr. Abraham, Curator of the Museum of the College of Surgeons, kindly furnished me, describing what he found on an examination of some sections of it:—

“A section taking in part of the muscular substance of the left ventricle, its endocardium, and some of the abnormal deposit shows the following points:—

“(1.) A proliferation of the endocardial epithelium, which in places projects in the form of ‘vegetations,’ around and upon which fibrinous material has been deposited.

“(2.) Much of the latter has an amorphous, and elsewhere a fibrous, appearance, and into it a more or less sparse infiltration of cells (? leucocytes) seems to have taken place.

“(3.) Between the muscular fibres an inflammatory cell-growth is often to be seen.

“(4.) The fibres themselves, near the endocardium, have a granular look, and, in some measure, have lost their striation.”

The occurrence of clots in the heart is not a very uncommon thing, but the existence of a formation of this character is, I think, worthy of

bringing under the notice of the Society. These fibrinous concretions occur, we know, in certain cases of fever, and especially cases of hyperinosis taking place in rheumatic fever. The question as to the occurrence of the mass in the femoral artery and in the aorta is one open to discussion. My idea is that the first formation took place in the apex of the heart, occurring in the usual position—namely, in that part of the heart in which the circulation is less forcible and less direct—and that, after a certain time, a small portion of this was washed away, and got into the general circulation, and that this escape of a portion of the mass from the heart was indicated on the morning when she felt the numbness in her lower extremities. I believe that the escaping clot or embolus probably stopped in the popliteal artery, at its bifurcation into the tibial, and that, succeeding that, we had the ordinary symptoms of gangrene resulting from insufficient blood-supply. After that I think the enormous mass of fibrinous structure which we find here was built upon the original embolus sent down from the heart. It is quite clear that such a mass did not escape at one time. The other question that arises is—Was the mass in the arteries in reality a thrombus formed on the spot, as resulting from inflammation of the artery? I think the answer is sufficiently indicated by the clinical history of the case—namely, that its formation in the heart began very much anterior to the occurrence of the symptoms, which indicated an embolus in the vessels of the lower extremity. We have evidence also that this clot, when it first took a position in these arteries and produced symptoms, did so when there was no inflammatory process going on in the patient, so far as temperature and pulse could signify. The specimen of hernia which I have from the same body was irreducible. It became very tense during the treatment of the patient in hospital, as Dr. Byrne notes, and he succeeded in emptying it of a large quantity of flatus on different occasions; but the tumour never could be thoroughly reduced, and we now have an opportunity of verifying that. I find that it was a hernia of the cæcum which had escaped through the femoral ring. It is adherent to the anterior portion of the margin of the ring. The adhesion is very close, and the hernia is in that sense irreducible. During the treatment of the case this hernia became very much inflamed, and an artificial anus formed. In the proceedings of the Society some years ago a case of cardiac thrombus on the right side was shown by Dr. Hayden. He believes that the greater proportion of the thrombi occur on that side; and in that respect he differs from Dr. Bristowe, who goes into the other extreme, and says that the great majority occur on the left side. In the particular case that Dr. Hayden showed, the right side of the heart was entirely blocked up with a great mass; but it could not have been *ante mortem*, because with the ventricle blocked up by such a solid mass the patient could not have lived. On the left side there was a thrombus which was peculiar in this sense—

that, having an adhesion to the apex of the heart such as exists here, it became very much prolonged, followed the course of the aorta, and got between the edges of the aortic valves, and in that way obliterated the second sound of the heart. That was observed during life, and was accounted for at the *post mortem* by the thrombus, which grew till it extruded itself from the heart through the opening, and prevented the valves of the aorta from closing.—*February 7, 1880.*

Melanotic Carcinoma of Thigh.—MR. WHEELER said: This specimen is nearly the entire of a tumour which I removed from a patient who was admitted under my care into the City of Dublin Hospital, on the 15th of January of this year. He had a painful tumour in the thigh, but the annoyance of which he complained was more soreness than actual pain. It was situated in the outer and back part of the left thigh, five inches above the external condyle of the femur, and was oval in shape, being about $2\frac{3}{4}$ inches long by $\frac{3}{4}$ of an inch broad. The longer axis lay parallel with the axis of the limb. It was very soft and movable, and there was some tenderness about its posterior part, while its anterior part was very tender. Notes of the case were taken by Mr. Davis. The man could flex and extend the limb without any inconvenience. The tumour did not move with the movements of the muscles of the thigh, and had no nodular feel and no fluctuation. There was the mark of an incision which had been made into the thigh some two years before, when he was in another hospital, the surgeon mistaking it for an abscess. He states about three years ago he fell and hurt his thigh, and about two months afterwards he first noticed the swelling. Previously he had felt no inconvenience; but from that time on he experienced some soreness in the tumour, although nothing to speak of. He submitted to an operation for its removal, and the surgeon, under the impression that the tumour contained fluid, made a free incision into it, but nothing came but blood. After he left that hospital it was greatly reduced in size, but he received a number of blows on it, which made it rather painful. When I saw the tumour had an obscure fluctuation I made an incision over it in order to remove it. I found it dipped into the muscular interstices of the thigh. There were no glands enlarged in the groin nor any swelling of the limb below. Before the operation the man suffered excruciating pain the moment you touched him. This may have been on account of some nerve-filaments caught in the cicatricial tissue, or in consequence of the proximity of the tumour to the great sciatic nerve, which was about an inch and a quarter from it; but there were no nerves running into the tumour so far as I could see. The vessels which are seen give the idea of its being a plexiform angioma. A microscopic examination was made by Dr. Abraham, who gave me the following description of it:—

“After examination of numerous sections of the soft brown masses

themselves, as well as of the neighbouring adipose and connective tissue, I have come to the conclusion that the growth is a soft, and probably melanotic, carcinoma. In the fragmentary, dark, clot-like masses, parts of the section show nothing but a granular, irregular reticulum, apparently breaking down, and with degenerating masses scattered about. Towards the periphery of some of the sections the reticulum becomes smaller, and the meshes are occupied by collections of large irregular cells of all shapes and of different sizes. These cells increase so much in number in places that the alveolar reticulum cannot be seen, and, on a casual examination, such a mass of them might be put down as sarcomatous. At the edges, where they have become broken off, these cells are seen to have the old-fashioned typical cancer characters—particularly in their varying shapes. They are evidently fast-growing, for many of them contain two or three nuclei, and one or two enlarged showed no less than six nuclei, with an evident endogenous production. A great characteristic in this case seems to be the rapid degeneration of these cells, many of them showing in their substance pigments and fatty granules.

“In the neighbouring tissues an infiltration of the growth is quite plain in many places, both among the fat-cells and among the connective-tissue bundles. In the latter situation I notice that there is a tendency for the cancer-cells to follow and surround the blood-vessels, some of which are thickened and seem to have similar cells within the substance of their walls. The endothelial cells also of some of the arteries appear to be hypertrophied and swollen.”

I have not the entire of the tumour, as a good many pieces of it were lost. It was not capsuled, but infiltrated amongst the muscles, and I had great difficulty in removing the entire of it. The patient is progressing favourably.—*February 14, 1880.*

Enteric Fever without Rose-spots or Diarrhœa; Cerebral Symptoms followed by Death.—DR. J. W. MOORE showed a portion of the ileum from a case of enteric fever without rose-spots or diarrhœa, in which cerebral symptoms supervened, and the patient (a young man aged seventeen years) died on the nineteenth day of the disease. He had been twelve days ill before his admission to the Meath Hospital. His illness commenced with severe headache and slight shivering. The headache became intense, and was accompanied by deafness, vertigo, and continued want of sleep. His bowels had not been moved for five days before admission to hospital, nor did they move until an enema had been administered. No rose-coloured spots could be detected. The diagnosis of typhoid fever was made, notwithstanding the absence of diarrhœa and rose-spots. On the twelfth day he received another enema and was given bromide of potassium. The second enema brought away two motions—the first solid, and the second fluid and pale in colour. On the thirteenth day the report

was that he had slept well after his draught. On the evening of the fifteenth day, Mr. Hamerton, who had charge of the case, and to whom I am indebted for these notes, found the sleeve of the patient's shirt torn in pieces, his head buried under the bolster, and his hands extended over his head, grasping at some imaginary object. There was well-marked subsultus, and he appeared to be in a state of true coma vigil. His temperature, of which I present a chart, never exceeded 102·4°. When he came into hospital he had a singularly low pulse, it being only 70, though his temperature was then 101·8°. From the sixteenth to the last day of his life, his temperature fell gradually but considerably, no motion passed from his bowels, and a heavy stupor deepened over him. There was ptosis of the right eye, with protrusion of the eyeball. Subsultus was also well marked. His heart was found to be acting violently, while the pulse at his wrist was small and weak. In the evening of the eighteenth day he had complete dysphagia and could swallow nothing. He died at five o'clock the next morning, being the nineteenth day of his illness. I confess that on account of the threatening nature of his head-symptoms on the morning of the sixteenth day, I felt considerable doubt as to the correctness of my original diagnosis of typhoid fever. I accordingly made a *post mortem* examination five and a half hours after his death. Rigor mortis was well marked. There was little or no subcutaneous fat. His chest was badly shaped, being narrow, flat, and long. The internal examination disclosed a normal amount of serous fluid in the pericardium. Baillie's spots on the heart were very perceptible. On section of the lungs occasional cheesy deposits were found. There was no fat in the omentum. The mesenteric glands were slightly enlarged. The lower part of the ileum for eighteen inches above the ileo-cæcal valve was completely collapsed and almost empty. Above that there was a region of great hyperæmia, and the intestine was distended with gas and fæcal matter. The fæces were not of that bright ochrey colour which is so usual in cases of typhoid. Above the ileo-cæcal valve Peyer's patches were extensively diseased, presenting the characteristic appearances of the second and third stages of the lesion of enteric fever. The mesenteric glands were to some extent enlarged. I undertook the examination of the head with a considerable feeling of interest. There was a great amount of effusion in both lateral ventricles. The brain, after the blood had been drained away, weighed 65 oz. I presume some deduction is to be made in consequence of the extensive effusion into the lateral ventricles. The arachnoid membrane at the base of the brain was slightly thickened and opaque, but no distinct evidence of meningitis existed. The spleen is slightly enlarged, but otherwise tolerably normal. The kidneys were larger than healthy kidneys. The spleen weighed 9 oz., the left kidney 6½ oz., and the right kidney 6 oz. The stomach presented the rugose appearance observed in rigor mortis of that organ. The two

points of interest in the case are the diagnosis of enteric fever in the absence of rose-spots and of diarrhoea, and the negative results of the examination of the brain and its membranes after the occurrence of such defined symptoms of cerebral meningitis. According to the late Dr. Murchison, rose-spots were found in 4,606 out of 5,988 cases of enteric fever admitted into the London Fever Hospital in twenty-three years—that is, in 76·92 per cent. of the cases. The same authority states, in his classical work on the “Continued Fevers of Great Britain,” that diarrhoea was present in 93 out of 100 cases, but he adds that subsequent experience satisfied him that the diarrhoea was absent in a larger proportion, or in fully one-fifth of the whole number, and that those cases were usually mild and recovered. Where the two prominent symptoms of the disease are both absent, as in the present case, the likelihood of the diagnosis of enteric fever being correct is, of course, diminished; but I based it on the age of the patient, and the fact that we were face to face with a continued fever running on for twelve days, with apparent absence of danger and a moderate range of temperature. The head-symptoms were not more pronounced than they would be in many cases of enteric fever in the third week. Perhaps the most interesting part of the case is the light it throws on the nature of the cerebral complications in fever. During the last two or three days of his life the patient presented the most marked symptoms of cerebral mischief, or even of cerebral meningitis, and yet at the *post mortem* examination the appearances were almost negative. The case illustrates the observations made by Dr. Stokes on the nervous or cerebro-spinal symptoms of fever. He says:^a—“It may be held that of the various symptoms indicative of suffering of organs in fever these are the most remarkable, and, when developed to a certain point, the grounds of a worse prognosis than any others. And yet, so far as investigation has gone, they are less often connected with organic change than those belonging to the digestive, respiratory, or circulatory systems.” He adds that the assumption of inflammation of the brain in the presence of violent nervous symptoms in fever constitutes one of the greatest dangers to which young physicians are exposed when they come to deal with the most formidable complications of the disease—aye, and old physicians, too, whose clinical education has been imperfect. That actual cerebritis does occasionally occur in fever is, in his opinion, certain; and he quotes, in support of this view, some of the remarkable cases Dr. Hudson reports in his admirable treatise.^b One of these cases had a singular likeness to that under discussion, for it is stated that “the patient, from the time of his admission, lay in a state of increasing stupor, with ptosis of one eye, strabismus, retention of urine, and final dysphagia.”—*February* 21, 1880.

^a Lectures on Fever. Page 276. London: Longmans, Green, and Co. 1874.

^b Lectures on the Study of Fever. 2nd Edition. P. 252.

Wounds of the Kidneys; Fractures of the Femur, Humerus, and Radius.—**DR. E. H. BENNETT** said: The specimens I present illustrate the remote results of wounds of the kidneys and some points of interest in relation to fractures of bone. The woman from whom they have been taken had been a patient in Sir Patrick Dun's Hospital for a very short time during the frost of the winter before this. At that time she suffered only from a Colles' fracture. On the night of Sunday, the 9th of November, during the cold weather, she was admitted again into the hospital in a condition of the most profound collapse—so profound that I thought she was moribund. She was vomiting incessantly. It appeared that on the Saturday evening previous, between three and four o'clock, before it was quite dark, she took a ladder outside the cottage in which she lived and placed it against the wall for the purpose of cleaning a window. While she was doing so she and the ladder fell together to the ground. The fall was a small one, the cottage being low, and one would have supposed would have produced but a limited injury. She was taken up by a cabman who was washing his cab in the lane, carried into her own room, and laid on the floor. There was a coke fire in her grate which had been made up just before the accident. She lay in the position in which the cabman placed her until the following evening—some twenty-six hours—absolutely without relief of any kind, unable to rise, unable to reach either water or food, and without being able to keep the fire up. She made futile efforts to rise, but did not cry out, and although there were many persons in the houses adjoining, no one came to her assistance. She lay in a state of profound collapse, and it was not until late on Sunday evening when her husband, who was employed on board one of the boats in the river, came in and found her in the condition I have described. When she was brought to the hospital her stomach rejected everything that was given to her in the shape of food or stimulant. It was evident that she had sustained a fracture of the lower third of the left femur, and it presented the greatest degree of displacement that I have ever seen in such an injury. It was an extremely oblique fracture, and she was so thin that we were able to sketch the contour of the fracture on the bed card. The point of the upper fragment projected downwards and outwards below the head of the fibula, and its sharp-pointed extremity was tending to come through the skin, which was discoloured and all but perforated. I reduced the fracture with facility. After the reduction I found that the length of the limb was almost completely restored, and in consequence of the profound state of collapse the patient was in the bone readily remained reduced. Once reduced it remained so with the ordinary application of a Liston's splint. An embarrassing part of the case was that she had also a fracture of the humerus on the same side close up to the shoulder-joint. The bone projected towards the anterior fold of the axilla, and the appliances for

securing the fracture of the femur greatly interfered with the management of the humeral fracture. She had in addition, though we did not notice it at first, a fracture of the index finger on the opposite side, so that there were three fractures caused by the one somewhat trivial fall. I did the best I could for her with warmth and restoratives, and left her, thinking she would be dead in the morning. To my great surprise, on visiting her next morning, she was alive; and now a new symptom was added—she passed involuntarily in bed great quantities of blood *per urethram*. It was an intermittent stream of blood with but little urine intermixed. This went on for some twelve or fourteen hours, and greatly depressed her. She was so low that I could not arrive at a diagnosis as to whether the hæmorrhage was due to a fracture of the pelvis and consequent wound of the bladder, or whether it was due to a wound of one of the kidneys.

I examined the pelvis with much care, but detected no fracture; but not detecting a fracture of the pelvis by direct examination during life is but poor evidence that it does not exist. The phenomena are very often greatly concealed. She had an extremely low pulse and temperature at first, but these conditions gradually improved. The hæmorrhage disappeared slowly, and by the thirteenth day after her admission her temperature had risen to 100° and her pulse to 104. From that on she had an oscillating fever temperature which varied from 100° to 99° in the mornings, and was between 100° and 102° in the evenings. After three weeks her condition became so urgent that I abandoned the treatment of the thigh by the long splint, and put the fracture up in plaster-of-Paris, with great relief to her. She was able to be supported in bed, and the embarrassed respiration that existed gradually disappeared. The hæmorrhage disappeared, but she had symptoms of cystitis with painful micturation. Her urine had a muco-purulent deposit and was alkaline. On the 29th of December her fever had greatly abated, and she was able to be lifted up out of bed and moved into a chair in the first week in January. The fever had then almost left her, still she flushed in the evening. In the first week of February her convalescence seemed almost established, her only troubles being occasional urinary irritation, slight hectic flush in the evening, and a vague abdominal pain at both sides. On the 4th of February she got a sudden attack of violent pain; her abdomen became distended, her bowels ceased to act, with increased temperature and accelerated pulse. I thought peritonitis had occurred, but these symptoms passed away after two or three days. Her bowels again acted, but from that time forward she had a continued and increasing pain which was ill defined as to its position, sometimes occurring in the umbilical region and sometimes at the groins of both sides. Of this no distinct explanation occurred to me; but as the temperature rose and fell with the oscillations of the hectic, I inferred that an abscess had

chondrium and to the kidney by a recent adhesion. This kidney was also wounded, and suppuration to a less extent than on the opposite occurred in it. The cause of death was, I think, the wounds of both kidneys; and it seems strange that these injuries and also the fracture of so many bones could have been inflicted by so small a fall. There was no fragility of the bones, or any condition predisposing to fracture; on the contrary, the bones were exceptionally strong, firm, and hard under the saw, and did not exhibit any signs of senile atrophy. There is nothing exceptional to note about the fractures, which are united by a callus as yet incompletely ossified, except that of the radius, in which union is of course completed.—*February 28, 1880.*

Tubercular Fever.—DR. FINNY said: These specimens of brain, lungs, liver, spleen, and kidney were furnished by a case of the terrible—because unfortunately, as I believe, incurable disease—tubercular fever. The patient, a coachman by occupation, thirty-eight years of age, was admitted into the City of Dublin Hospital on the 13th of last month. There was no family history. He had always been tolerably healthy, but had been subject to colds in consequence of the nature of his occupation, which exposed him to frequent wettings and variations of temperature. He was, as he described it, a “regular moderate drinker”—the meaning of which was that he took about three glasses of whisky and two pints of porter per diem. On Sunday, the 25th of January, while he was driving in the Phoenix Park, he suddenly brought up a quantity of dark-coloured blood, and for twenty minutes afterwards continued to expectorate blood, but unaccompanied by coughing. After he got home this hæmorrhage returned, and was stopped by a bottle of medicine which he got. A heavy cough followed with expectoration, but there was no blood. A few days afterwards he was attacked by severe epistaxis, which came on both while he was awake and while he was sleeping, and was followed by shivering. His voice had been somewhat husky, and he was then suddenly seized with aphonia. It was principally for relief of the last-mentioned symptom that he came to hospital. He also complained of stitching pains in his right side, which extended from the nipple round to the angle of the scapula. At the time of his admission his sputum was streaked with blood, but it was not then, nor at any time, copious. For ten days it continued to be hæmorrhagic, and then became muco-purulent and frothy. The blood seemed to come from the pharynx and throat, as they were intensely injected. There was evidence of pleuritic friction on the right side, and this was followed by physical signs of pleural effusion. These signs remained to the end. In the course of the case crepitant and muco-crepitant râles developed throughout both lungs with slight percussive dulness. The patient's appearance was then that of a person suffering

from the deep congestion of cyanosis. His lips, mouth, the lining membranes of his gums, and his fauces were of a deep purplish-red colour, with prominent vessels ramifying on the uvula and arches of the palate, and he complained of soreness about the throat. His larynx, which was of the same deep purple hue, showed œdematous swelling of the aryæno-epiglottic folds and general vascularity; the capillaries of his cheeks, nose, and forehead were likewise turgid. Physical examination revealed enlargement of the liver and spleen—the former being uniformly enlarged four inches below the costal arch, with a resistant defined edge. His urine was of normal specific gravity, and contained no albumen. His temperature was always that of fever, ranging from 100° to 104° , while the pulse was invariably above 110, and the respiration was rapid and out of proportion. The other general characters and symptoms were similar to those that occur in enteric fever, to which fever, as the members of the Society are aware, this tubercular fever is so closely assimilated in many points. Only on two occasions, while he was under treatment by salicylic acid, was his morning temperature higher than that of the evening. He lay generally on his back, but towards the end of his life on his right side. This decubitus was the more remarkable as his respirations were extremely rapid—ranging from 40 to 64 in a minute. He had none of the dyspnœa of bronchitis or asthma, or cardiac debility. He became gradually worse from day to day, lying in a semi-comatose condition, and not answering questions unless when spoken to loudly. His lips and gums became covered with sordes. Two days before his death he became delirious, got out of bed, and talked about his business. On that day, and the following, which was the day of his death, his temperature fell three degrees. From the history and symptoms there was little doubt that the case was one of tubercular fever—while the epistaxis and turgescence of the superficial capillaries were due to the state of the liver, which was probably in the first stage of cirrhosis. Examination of his lungs showed nothing which pointed to the nature of sthenic, or catarrhal pneumonia in the ordinary sense of the terms, nor did the fever correspond with pneumonic fever. As his case progressed the respiratory sounds became coarser. There was a general absence of resonance all over, but more particularly between, both scapulæ.

The *post mortem* examination was made yesterday. The liver showed a good example of commencing cirrhosis in its first stage, having nodules at the edges, and presenting a yellow granular appearance on section. The spleen is enlarged, very firm to the feel, covered with minute white bodies, which I believe to be miliary tubercles, and which are attached to the serous covering of the gland. Similar tubercles were found through the whole body. The kidneys, which were not in a state of cirrhosis, presented in the cortex an excellent sample of commencing

miliary tuberculosis. The lungs over their whole surface, and particularly in the fissures between the lobes, are covered with these tubercles. On section of the lungs numbers of the white bodies termed tubercles are also seen, not only under the pleura, but throughout their entire substance. The brain contained a number of minute tubercles, especially in the pia mater generally, the arachnoid of the base, and the posterior surface of the cerebellum. The choroid plexus was also studded over with small white bodies. The case is, therefore, a typical one of general miliary tuberculosis—of, however, a very rapid course, as from the day he first spat blood to the day of his death thirty-six days elapsed; and it is an open question if the tubercular fever had existed then and not ten days later. It is clear that the epistaxis had nothing to say to the tubercular conditions, but was brought on by cirrhosis induced by frequent drinking of alcohol. Four years ago I brought before the Society another case of acute miliary tuberculosis with fever similar to this, except that the symptoms referred mostly to the brain. The case had been sent to hospital as one of enteric fever. The duration of the case was one of the shortest on record, as it lasted not more than twenty days. An examination after death revealed general tuberculosis, but the greatest number of tubercles were confined to the brain.—*March 6, 1880.*

Thoracic Aneurism.—DR. A. W. FOOT exhibited a specimen of aneurism of the thoracic aorta which occupied the ascending and transverse portions of the arch. Although of considerable size it had given rise to no symptoms during life, nor had the patient ever referred to any symptoms directing attention to the anterior part of the chest. The preparation was taken from the body of a well-made and fine-looking man of forty-four years of age, who had been admitted to the Meath Hospital, complaining of a cough of six months' existence. He presented the signs and symptoms of chronic broncho-pneumonia. A few days before his death the expectoration, which had been colourless, became tinged with blood intimately incorporated with it. Twenty-four hours before his death he got a sudden attack of dyspnoea and cyanosis, which was relieved by ether, administered by the mouth and subcutaneously, but which proved fatal in a second attack.

The preparation shows that the conditions for rupture of the sac into the trachea had almost been completed—a minute slough has already occurred in the mucous membrane of the trachea between two of the rings, but the opening left by its separation is plugged by a piece of the white laminated fibrin of the sac. Above the situation of the sloughed portion the mucous membrane was raised and prominent into the trachea in the fashion of a boil about to open.

The complete latency of this aneurism, as regards signs and symptoms, is an accident of the disease which has frequently been brought under

the notice of this Society. In explanation of the absence of stridor from the pressure on the windpipe, Dr. Foot pointed out that the sac impinged directly upon the crown of the arch of the trachea, and the great resistance which cartilage offers to aneurismal pressure—a resistance which often long outlasts that offered by bony structure.—*March 6, 1880.*

Aortic Aneurism communicating with the Pulmonary Artery.—DR. FINNY said: This is an example of an aneurism of the ascending portion of the thoracic aorta communicating with the right pulmonary artery. The man from whose remains it was taken (a cab-driver aged fifty-four years) was admitted into the City of Dublin Hospital on the 28th of last February. He was well known in the neighbourhood, and I myself had often seen and employed him. His appearance was made remarkable by a kind of purplish flush on the cheeks and nose. The history which I obtained from him was shortly the following:—Since the commencement of the winter he had suffered from shortness of breath whenever he took any very great exercise, and also constantly from cough, for the relief of which he had made frequent applications to the hospital for cough mixtures. These relieved the symptoms, and he continued at his work to the very day of his death, which was the day of his admission into the hospital. On the day before his death he had carried a box belonging to a servant who had hired him to the fifth story of a house. It was too much for him, and he felt very much exhausted; and he thought that over-exertion on that occasion was the cause of his death—an opinion in which I believe he was right. He spent a bad night following the day on which he made the effort, but was nevertheless able to get up the following morning and wash his cab, although feeling so weak as to be hardly able to do so; and between twelve and one o'clock in the day he was brought to the hospital, gasping for breath, almost speechless and pulseless. His extremities were cold and his pulse was small and quick. Restoratives were given to him, and I saw him about two hours after admission. He was sitting up in bed, holding the bedposts, and labouring violently for breath. His face was deeply cyanosed, particularly on the malars and ears; the lips and about the forehead and nose were pale. Both legs were œdematous. A hasty examination of his chest showed no sign of either consolidation or effusion in the lungs or pleuræ, but that there was emphysema of the lungs with displacement of the liver and heart. On percussing the sternum, the clear sound of the lungs diminished from below upwards, and a portion corresponding to the first bone sounded comparatively dull; over this, and over the whole sternum, a loud double murmur was heard. This could not have been due to regurgitation from the tricuspid opening, as there was no intensification of the first sound below. I ventured to suggest double aortic disease, with aneurismal dilatation of the aorta. Inhalation of nitrite of amyl was practised,

which gave him great relief, and the pallor of the portions of his face that had not the purple marking seemed to be less marked after it, and after the administration of ether, which also was given hypodermically and by the rectum. I mention these points in so far that they justified me in looking on the state of the patient as one of asthenia of the heart rather than cyanosis from obstruction on the right side. He was soon relieved so as to be able to speak in less broken sentences, and to tell me the history I have detailed above. In this condition he remained until evening. His respiration then became somewhat more laboured, and he sank quietly about twelve o'clock at night. On examination the lungs were found to be greatly emphysematous on both sides. Portions of the lungs were mapped out at the interlobular spaces by very bright red lines—of too red a colour to be the indices of mere congestion. In order to show the specimen it was filled with paraffin wax from the carotids, and while that was being done it was noticed that the more wax was poured in, the more seemed to come out at the pulmonary artery.

The first point which is observable in this specimen is the smallness of the heart and the absence of hypertrophy. It was recently stated here by some gentlemen who showed pathological specimens that hypertrophy of the heart was the rule in cases of aneurism. I take exception to that statement, and would refer to what Dr. Walshe states in the fourth edition of his work on "Diseases of the Heart," viz.:—"Overgrowth of the heart may certainly follow in a certain share of cases, especially when the sac originates in the vicinity of the valves. But it is equally certain (this statement is made on *post mortem*, in addition to clinical, evidence) a very large sac of some years' growth, and situated in that part of the vessel, may fail to induce the smallest increase in the heart's bulk." In the present case there is no hypertrophy of the left ventricle. On opening the pulmonary artery we found that the wax had filled the artery, and had taken the shape of the valves. The sac of the aneurism appears to have somewhat compressed the right pulmonary artery within half an inch of its origin, and an aperture is found extending between the anterior wall of the pulmonary artery to the back of the aneurismal sac. The case presents a mode of communication between the aorta and the pulmonary artery which is not by any means common. As long as I have been attending the meetings of this Society I cannot call to mind any other instance where the aneurism opened into the right pulmonary artery, although I know there are several cases on record where the aneurism opened into the common pulmonary artery at its right side or back, just after its origin.

While I was clinical clerk of Dr. Stokes, in the Meath Hospital, I met with one case in which the aneurism opened into the conus arteriosus below the valves, but I am not aware that this is a frequent mode in which an aneurism may open, and the case I exhibit is still rarer. I

believe that in the present case the aneurism must have existed in the patient for a very long time—possibly for some years, and, at all events, for several months; and an interesting point about the case is, that with a sac like this the man should have been able to follow the arduous occupation of a cabman, where so many times a day the work of lifting heavy boxes and other goods devolves upon him. This man experienced no pain and presented no symptoms of stridor, peculiar dysphonia, or laryngeal hoarse voice, which is common where there is pressure on the recurrent laryngeal or other branches of the pneumogastric nerve. Up to within two or three hours before his admission to hospital, he was undergoing severe manual labour. His mode of death was due, I believe, to muscular weakness of the heart—in fact, to overstrain when already weakened. I have known many cases of thoracic aneurism in which the patients died suddenly without rupture of the sac, and I think that in the present case the rapid death of the patient was due to weakening of the heart caused by the extreme strain put upon it on the afternoon of the day before his death. I also think that communication between the two sacs must have occurred only about the time when he experienced the exhaustion of that afternoon. As at the same moment the blood was expelled at systole into the aneurism and the pulmonary artery, and the blood reached the pulmonary vessel, as we may conceive, an instant before the full expansion of the aneurismal sac took place, it is very probable that the circulation through the pulmonary artery was not much mixed with arterial blood; while, possibly, during diastole a very small quantity leaked through, and, being impelled at next systole, caused the bright red lines which were noticed in the interlobular spaces of the right lung.—*March 13, 1880.*

Hyperpyrexia in Enteric Fever.—DR. J. W. MOORE said: On the 21st of February I laid before the Society a case of typhoid fever in which there were very severe head symptoms, and, after death, little or no evidence of true meningitis. The case I present to-day is also one of typhoid fever in which very severe cerebral symptoms were present, and which is also interesting in consequence of the occurrence of unusual hyperpyrexia before death. For the notes of the case I am indebted to my clinical clerk, Mr. Donald Grant.

A girl, aged twenty years, was admitted into Cork-street Fever Hospital on the 8th of this month from one of the city dairies. She appeared to have been nine days ill before her admission, but we could not obtain any accurate account of her clinical history. When she was admitted her face was flushed, she had a heavy, listless expression; her tongue was furred, but its edges were clean, and her lips were free from sordes. There was no trace of an eruption on her skin, which was perfectly clear. Her abdomen was distended, and her bowels were relaxed. The pulse

was markedly dicrotic. The cardiac and pulmonary sounds were normal. The patient lay on her back, and answered questions very slowly, but quite intelligently. A diagnosis of typhoid fever was at once recorded. On the evening of her admission the temperature in her axilla was 104.2° , her pulse was 124, and her respirations were 44 per minute—the breathing being very nervous in character. On the night of the tenth day of her illness she was almost completely without sleep. She seemed to hear and understand what went on around her, but seldom spoke. On the eleventh day the cerebral symptoms became very marked, and the cerebral stain (*tache cérébrale*) was readily produced on her forehead, the back, and over the surface of the body generally. There was great sub-sultus tendinum, which affected the muscles not only of the forearms, but also of the neck and face. Her tongue had now become very dry; there was dribbling of urine from the over-filled and paralysed bladder, so that from this time until her death the catheter had to be used twice a day. On the thirteenth day she had no sleep, and her pupils were unequally dilated, the left being larger than the right. The state of her bowels was at this time well under control. No change had occurred in the respiratory symptoms, but the rate of her pulse was steadily increasing. On the morning of the fifteenth day her temperature fell to 102° , her pulse being 148, and her respiration 42. This want of accordance in the symptoms led us to have but faint hopes of amendment. In the evening the temperature rose to 106.4° , her pulse was 180 per minute, and her respirations were 64. She was given a cold bath, the temperature of the water being at first about 70° , and afterwards reduced to 60° . On removal from the bath she was placed in a wet sheet, and packed with blankets for half an hour; stimulants also which had been well borne for the last two days, were administered. After the pack her temperature fell to 104° . On the seventeenth day the morning temperature was 105.2° . She was quite conscious, and asked the nurse whether she was to have another bath. She died at 7 15 p.m. on that day without a struggle. Five minutes before her death the thermometer placed in the axilla showed a temperature of 109.8° . Her urine, on the morning of her death, was highly albuminous. Throughout the fever there was little or no active delirium, and the patient had little difficulty in swallowing. Her bowels also were easily controlled, but she had excessive perspirations. On the morning of her death a copious crop of sudamina appeared on the upper part of her chest.

An autopsy was made sixteen hours after death. There was considerable hyperæmia of the membranes of the brain, and a cloudy deposit of lymph existed in the arachnoid membrane at the summit of each cerebral hemisphere. The descending cornua contained soft, stringy clots of blood, and the quantity of cerebro-spinal fluid was excessive. The spinal cord was not examined. The ileum was hyperæmic above, and intensely so

near its termination. The mesenteric glands were greatly enlarged, as were also the solitary glands of the intestines. Peyer's patches were enlarged throughout. They were raised, with firm, hard edges, and sloughs were beginning to form in the lower portion of the ileum. The patches were two inches long in some instances. There was no perforation of the intestines. The spleen was enlarged. The kidneys were apparently quite healthy. The extreme hyperpyrexia in the present instance was evidently of that kind which is occasionally observed in the Continued Fevers, and which appears to be incompatible with life. In the sixty-fifth volume of *The Dublin Journal of Medical Science* (page 151) I recorded a very similar example of high temperature in typhus fever. The thermometer placed in the axilla rose to 109.1° during the death-agony of the patient, a woman, aged thirty-eight years, who succumbed on the nineteenth day of a typhus fever of the nervous or ataxic type. These exceptionally high temperatures in continued fever are to be distinguished from those still more remarkable bursts of hyperpyrexia which are sometimes observed in lesions of the upper portion of the spinal cord, and in certain functional disorders of the nervous system. Strange to say, such extraordinary elevations of temperature do not necessarily or even commonly destroy life, perhaps in consequence of their brief duration.—*March 20, 1880.*

TREATMENT OF INTERTRIGO INFANTILIS.

ACCORDING to Adolf Wertheimber, Munich, fatty matter is found to abound in the cutaneous secretions of the infant. Intertrigo in the vicinity of the anus is often produced by a dyspeptic condition. Equal parts of fresh cow's milk and mucilage of barley, or in the proportion of one of milk and two of the mucilage, sometimes suffice to effect a cure. If the salts excreted are acid, the following should be given three times a day:—*R.* Cretæ preparat., gr. $1\frac{1}{2}$; bismuthi subnitrat., gr. 3; sacchar. alb., gr. 3; *M.* Or very small doses of muriatic acid. The child to be washed with soap and warm water and with bran baths. The unbroken skin should be powdered with lycopodium, or with a mixture of equal parts of oxide of zinc and subnitrate of bismuth. The moist parts of the skin are better treated with Hebra's diachylon ointment mixed with olive oil than with zinc or lead ointments. In old cases, a solution of bichloride of mercury (sublimed), 1 in 2,000 of water, should be applied three or four times a day. To complete the cure the diachylon ointment should be had recourse to again.—*Deutsch. Archiv f. klin. Med.*, 1878, XXI., p. 308. Hebra's diachylon plaster is a mixture, freshly prepared at a gentle heat, of equal parts of simple lead plaster and linseed oil spread on linen. Hebra recommends it in local sweating, especially of the feet.—*Lyon Médical*, Jan. 25, 1880.

K. F.

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K. F.

CLINICAL RECORDS.

CORK-STREET FEVER HOSPITAL, DUBLIN.—*A Case of Exanthematic Fever resembling Epidemic Cerebro-spinal Meningitis.* By J. W. MOORE, M.D., Univ. Dubl.; F.K.Q.C.P.; Physician to the Meath Hospital and to Cork-street (Fever) Hospital, Dublin.

THE patient who forms the subject of this clinical record passed through an illness of such severity, and presenting so many features of interest, that I consider it a duty to publish this account of a very exceptional case:—

Francis M'G., aged fifteen, was admitted to one of the smallpox wards at Cork-street Hospital on the evening of Tuesday, April 27, 1880. He stated that he was a draper's assistant in a very large establishment in Dublin. His illness began about noon on Saturday, April 24. While he was at his work he was suddenly attacked by pain in the small of his back, accompanied with headache and apparently with nausea and vomiting. On the evening of the same day his throat felt very sore. Next morning (Sunday) he went home to Drumcondra, feeling very ill, and becoming worse as the day wore on. He had no appetite, while the headache, pain in the back, and sore throat continued. In the evening he returned to his place of business in town, where he slept; but, feeling no better on Monday morning, he remained in bed until the manager saw him in the course of the day and had him removed to the Adelaide Hospital. The following day (Tuesday) a rash began to appear, which was so suspicious-looking that Dr. Walter G. Smith was sent for to see him in the afternoon. When visited at 5 30 p.m., Dr. Smith found him lying on the sofa, complaining of being very weak. His face was flushed, but there was no eruption on it. On the backs of the hands and forearms were numerous nodules and irregular patches of eruption, pink, readily effaced, and distinctly elevated—at least on the hands. Scattered over the legs were numerous punctiform hæmorrhagic patches. A provisional diagnosis of purpuric smallpox was made, so that the patient was sent to Cork-street Hospital, where he was placed, as a case of variola, under the care of my colleague, Dr. R. J. Harvey. For most of the subsequent notes of F. M'G.'s illness I am indebted to our clinical clerk, Mr. John Armstrong,

On Wednesday morning, April 28, the 5th day of disease, Dr. Harvey, at his first visit, recognised so many anomalies in the symptoms that, believing the case was not one of smallpox, he left a message for me to

see the patient. I accordingly did so. His pulse was now 120, the temperature in the axilla was $104\cdot6^{\circ}$; his tongue was thickly furred, and the papillæ were red and enlarged as in scarlatina. The mucous membrane over the fauces, palate, and pharynx was deeply injected, showing here and there patches of whitish exudation. He complained at this time of only slight headache, and of very little pain in the back. There was, however, a decided stiffness of the nape of the neck, with retraction of the head—occasionally jerking of the muscles of the neck and face was noticed. The bowels had remained confined since Monday. A profuse eruption covered the body generally, but especially the back and the posterior aspect of the legs and arms. The eruption was of a deep rose colour, and consisted of more or less elevated maculæ. The spots varied in size from very small papules (on the neck) to patches as large as a two-shilling piece, and of irregular outline; they showed a tendency to coalesce—were slightly elevated, at least at the edges, which were whitish, like the wheals in urticaria—and in many cases had a distinct reddish or even purple centre; they were readily effaced by pressure. The patches of eruption were best seen on the back, the extensor aspect of forearms, the elbows and buttocks, and on the inner and front part of each shin was a punctiform hæmorrhagic patch.

The eruption was markedly absent from the face, only one small patch on the lower lip above the chin being observed.

The appearance of the eruption, the marked cerebro-spinal symptoms, and the history of the illness, at once recalled to my mind the cases of epidemic cerebro-spinal meningitis which I had seen at the Meath Hospital in 1867, under the care of Drs. Stokes and Hudson. At all events, it was now becoming clear that the patient was not suffering from smallpox, and accordingly he was removed without delay to the non-infectious fever ward in the fever hospital.

Evening.—Temperature 105° , pulse 130. Slight spasmodic twitchings are noticeable in the lips; at intervals also there is a peculiar jerking of the head, which is slightly retracted. A small irregular subconjunctival ecchymotic patch is observed on the outer side of the right eye. There is no albumen in the urine.

Thursday, April 29th. (6th day). *Morning.*—Temperature $103\cdot6^{\circ}$, pulse 134, respiration 36. It is reported that he slept very badly and was very restless during the night. He still complains of pain in the back of the neck. Eruption is fading slightly, but is less delible on pressure. The cervical muscles are twitching; the external carotid arteries throb visibly; the lips are very much swollen. The patient rambles a good deal, but when roused he speaks perfectly intelligibly. The tongue is covered with a yellowish, creamy fur. He was ordered ten ounces of port wine, and plenty of milk and beef tea. The following mixture was also prescribed:—

R.—Potassii bromidi,
 Potassii iodidi, āā gr. 80
 Spt. chloroformi, 3 ij.
 Tinct. cinchonæ flavæ, 3 vj.
 Infusi cinchonæ, ad 3 viij.

M. Ft. mistura.—Signetur: 3 i. tertiis horis sumend.

Evening.—Temperature 100·4°, pulse 136, respiration 36. Diarrhœa during the day (seven motions). *Cerebral vomiting*—the matter vomited is of a green colour, and ejected spasmodically and with considerable force; both medicine and wine are vomited as soon as taken. Other symptoms show no improvement. The head is more retracted than in the morning; carotids are throbbing forcibly; the twitching of the cervical muscles continues; the pulse is small, weak, and rapid; the pupils are dilated. There is an anxious expression in the face. The patient passes water freely, and it is found to be free from albumen.

April 30 (7th day). *Morning.*—Temperature 104·4°, pulse 108, respirations 40–66. Restless during the night, tossing and constantly muttering, and trying to get out of bed. Vomiting almost entirely ceased; was able to take wine during last night. The other nervous symptoms unimproved. Rash slowly fading. Medicine not to be repeated.

Evening.—Temperature 103°, pulse 120, respiration 68. No improvement since morning. Extremities cold. Tossing about and delirious during the day.

May 1 (8th day). *Morning.*—Temperature 102·8°, pulse 112, respiration 50. Pulse very weak, and almost impossible to count. He had scarcely any sleep during the night. There is a tetanic spasm in the right foot. He can still, although with difficulty, be roused to give coherent answers. Rash fading. Ordered 2 oz. of brandy, in addition to the port wine.

Evening.—Temperature 100°, pulse 120, respiration 56. Very restless during the day, sometimes getting fits of crying or screaming out loudly. Eyes closed, and he seems to be unable to open them; appears to be suffering much pain; sordes on lips; cannot be roused to answer questions; no vomiting; head markedly retracted.

May 2 (9th day). *Morning.*—Temperature 103°, pulse 120, respiration 50. Shouting and crying continued during the night. Frowning; tetanic twitching increased; head retracted; passes water in the bed; rash fading to a brownish stain, indelible on pressure.

Evening.—Temperature 101·2°, pulse 116, respiration 50. Became rather violent during the day. Takes the wine readily, but it has now to be given carefully as it seems to excite him; great venous congestion, especially in the upper extremities; head not so much retracted, but the twitching of cervical muscles and the throbbing in the carotids continues; a small ecchymotic patch is noticeable above the iris of the left eye;

that on the right eye has almost disappeared; he passes water freely, and has regained power over the bladder.

May 3 (10th day). *Morning*.—Temperature, 103·2°, pulse 116, respiration 52. Sleepless during the night; tongue dry, brown and fissured; sordes on lips and teeth; eyes closed; pulse very small and weak. On drawing the finger sharply across the skin a deep red line is left which persists for some time. This is, no doubt, the “cerebral stain” (*tache cérébrale*). He cannot be roused to talk intelligibly. Rash has now faded to a faint brownish stain. Ordered:—

R.—Tinct. opii,
 Tinct. digitalis, āā 3 j.
 Spt. æther. nitrosi, 3 ij.
 Aq. Camphoræ, ad 3 vj.

M. Ft. mistura.—Signetur: 3 j. secundis horis donec dormiret. Wine, 8 ozs. Brandy to be discontinued.

Evening.—The patient slept well after the second dose of this opiate mixture, so it had not to be given again. No worse than in the morning. Temperature 104°, pulse 124, respiration 48.

May 4 (11th day). *Morning*.—Temperature 101·8°, pulse 118, respiration 40. Ordered wine, 12 ozs.; brandy, 2 ozs. Not any worse; in some respects better; more easily roused; tongue cleaning at the edges; rash fading; *tache cérébrale* not so well marked; venous stasis considerable, though less than at first. Asked for a cup of tea.

Evening.—Temperature 98·4°, pulse 104, respiration 28. Appears much better. Slept a great deal during the day; talks quite coherently; complains of slight sore throat. Recognised his mother when she came to see him.

May 5. *Morning*.—Temperature 102·8°, pulse 100, respiration 24. Slept well. Still complaining of sore throat; tongue moister than on yesterday; rash replaced by a pinkish stain, but in some parts it has entirely disappeared. Wine reduced to 8 ozs.; brandy stopped.

F. M^cG. tells me that the past few days are to him a blank. The last thing he remembers is his being carried from the smallpox wards to the fever hospital.

The patient continued to go on well until the 9th of May—the twelfth day after his admission to the smallpox wards. On the evening of this day the temperature began to rise, reaching 104·8° on the evening of the 11th, when the eruption of *variola discreta* appeared. The disease ran a favourable course, but the pustules were of an unusually large size. On the 15th and 16th of May the temperature rose again, when the throat became very sore. Patches of diphtheritic exudation now appeared on the fauces and uvula, which was considerably elongated. The throat was much better in a couple of days, and the patient speedily became convalescent. He left hospital quite well on June 18, 1880, fifty-two days after admission.

Francis M'G. ; Age, 15 ; Disease, *Cerebro-spinal Meningitis* ? Result, *Recovery*.

[illegible]

Appended is the clinical chart of temperature, pulse, respirations, &c., which shows very clearly the course of the three illnesses through which F. M'G. passed so happily unscathed. That the original malady was not smallpox with marked cerebro-spinal symptoms is proved by the occurrence of an undoubted attack of smallpox twelve days after exposure to the contagium of that disease. The question remains—What was the nature of F. M'G.'s illness? The mode of onset—sudden, with pain in the head and back, nausea, and sore throat; the subsequent development of such nervous or ataxic symptoms as retraction of the head, stiffness of the neck, muscular twitchings, throbbing of the carotids, spasmodic vomiting, and the cerebral stain; and, lastly, the peculiarities of the rash—all justify the opinion that the attack was probably one of exanthematic cerebro-spinal meningitis. The characters of the eruption were very similar to those observed by me in three cases of the so-called “epidemic cerebro-spinal meningitis” of 1867, which will be found reported in *The Dublin Quarterly Journal of Medical Science* for August, 1867, Vol. XLIV., page 194, *et seq.*

The eruption in the three cases in question is described as follows:—
Case I. “On the legs and arms were found spots of a dark purple colour and of different sizes; all of them accurately defined and circumscribed, also slightly elevated; perfectly indelible on pressure, and in places covered with tiny papillæ, or even vesicles. The largest of these spots was about the size of a sixpence. They were confined to the extremities, with the exception of one or two small ones on the face and many over the gluteal region. Besides these spots there was noticed on the chest a mottling of the skin, almost passing into the form of petechiæ in places, besides a dusky hue like that of typhus.” This patient died on the morning of the seventh day of her illness.

In Case II., “the skin was dusky; on the face were one or two small spots, many on legs and arms. These spots were small, smooth, and *not* raised—though afterwards some became slightly elevated towards their centres. There was no vesicular appearance, as in Case I. Each spot had a well-defined margin; they were indelible on pressure.” This patient also died after sixty-four hours' illness.

In Case III., “round the mouth was noticed a complete ring of herpetic vesicles. On the chest two small pustules were seen. On the legs were many of these—some of them just commencing to form, others withering or dried up. Each was surrounded by an inflammatory areola. They closely resembled the rash of varioloida [*? variola discreta*]. On the arms, especially near the elbows, there were seen *large reddish spots, slightly elevated, and with sharply defined margins*, the counterparts of the spots in Case I. except in colour, and in their *being delible on pressure*.” This patient made an excellent recovery.

As influencing the prognosis for good in a given case we have to

notice (1) the degree to which the rash is delible on pressure, and (2) the early fading of the spots. In F. M'G. these favourable indications were both present, and—as we have seen—the result was satisfactory.

Lastly, it is not unlikely that an exhausted nervous system was the chief predisposing cause of the diphtheritic attack which occurred as a complication on the seventh day of discrete smallpox.

CYSTOTOMY FOR CYSTITIS IN THE MALE.

At the recent annual meeting of the American Medical Association, held at New York, Dr. Robert F. Weir, of New York, read a paper on the above subject, which embodied the results of forty-seven cases in which the operation of cystotomy for cystitis had been resorted to. Of the 47 cases collected by Dr. Weir 13 died, 10 of which deaths were due to advanced kidney diseases, and only 3 to the operation itself. Of the 34 cases that recovered, 23 were cured by the operation absolutely, or were so much relieved as to be able to return to their vocations, to hold their urine for several hours; 7 were relieved to a moderate extent, and 4 completely failed in affording any benefit. Not all, however, were treated by lateral lithotomy—in only 32 cases was this method used, the bilateral incision five times, and the median ten times. When the median section was resorted to, in six of which a cure resulted, either a supplementary incision (three times) into the prostate was done, or the finger (once) or two fingers (once) were introduced into the bladder, or by a bivalved speculum the vesical orifice was stretched (five times) to the diameter of an inch. Hence, when the median operation was resorted to, incision or laceration of the prostate was of necessity conjoined with it. A permanent fistula was more apt to occur after the median operation. To afford success, not only a free opening into the bladder, preferably by the lateral incision, must be made, but also the wound should be kept open as long as possible by either introducing the finger or a large tube frequently during the first ten days after the operation, and after that time oftentimes a tube can be permanently borne. Dr. Weir also cited a number of cases where, in the performance of lithotomy or cystotomy, the hypertrophied median lobe or other portion of the prostate, had been removed without enhancing the risk of the operation, and advised, after consideration of the subject, that an endeavour should, if possible, be made in the performance of cystotomy in the aged (or past fifty-five) to remove any enlargement of this gland.—*N. Y. Med. Record*, June 5, 1880.

SANITARY AND METEOROLOGICAL NOTES.

Compiled by J. W. MOORE, M.D., F.K.Q.C.P.

VITAL STATISTICS

Of Eight Large Towns in Ireland, for Four Weeks ending Saturday June 19, 1880.

Towns	Population in 1871	Births Registered	Deaths Registered	DEATHS FROM ZYMOTIC DISEASES							Annual Rate of Mortality per 1,000 Inhabitants
				Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhoea	
Dublin, -	314,666	746	949	54	30	56	6	35	39	9	39·2
Belfast, -	182,082	560	457	—	5	2	1	23	6	8	32·6
Cork, -	91,965	218	217	—	—	14	1	5	10	8	30·7
Limerick, -	44,209	97	74	—	—	—	—	—	6	2	21·8
Derry, -	30,884	79	49	—	1	—	—	7	1	—	20·6
Waterford, -	30,626	55	72	—	—	3	—	—	—	1	30·6
Galway, -	19,692	34	36	—	—	—	—	—	4	1	25·1
Sligo, -	17,285	45	36	—	—	—	—	—	1	5	27·1

Remarks.

An excessive death-rate continued throughout the period in Dublin. In Belfast, Cork, and Waterford also the mortality was very high; in Sligo and Galway it was high; but in Limerick and Derry it was moderate. The average annual death-rate per 1,000 represented by the deaths registered in the sixteen principal town districts of Ireland during the four weeks was 31·4; whereas that in twenty large English towns (including London, in which it was as low as 18·4) was only 19·4. In Edinburgh the mortality was at the rate of 21·8 per 1,000 annually; in Glasgow it was 22·9. Omitting the deaths (37) of persons admitted into public institutions from localities outside the district, the death-rate in the Dublin registration district was 37·7 per 1,000 per annum, while it was as high as 40·6 within the municipal boundary. From the foregoing figures it appears that *the death-rate in Dublin was more than double that in London*. This inordinate mortality was largely due to the prevalence and fatality of zymotic affections, to which class of diseases 265 out of the 949 deaths registered were attributed—that is, 27·9 per cent. Scarlatina, smallpox, fever, whooping-cough, and measles were all prevalent and fatal. The deaths from smallpox (54) were higher than they

have been in any period of four weeks since that ending March 22, 1879, when they were 62. Of the 39 deaths from fever, 17 were ascribed to typhus, 20 to typhoid or enteric, and 2 to "simple continued" fever. The deaths from zymotic diseases were more than double the average of the previous ten years—namely, 265, compared with 125·7. As regards the other Irish towns, we note that whooping-cough was fatal in Belfast and Derry, scarlatina in Cork, and that there were 4 deaths from fever in Galway. Diseases of the organs of respiration caused 155 deaths in Dublin, the ten years' average being 110·7 in the corresponding period. The deaths included 106 from bronchitis (average=76·9) and 37 from pneumonia (average=21·8). On Saturday, June 19, the number of cases of the different epidemic diseases under treatment in the principal Dublin hospitals were—of smallpox 165 (or exactly twice as many as were in hospital on Saturday, May 22, and nearly three times as many as were under treatment on Saturday, April 24), of measles 59, of scarlatina 58, of typhus 35, of enteric fever 12, and of pneumonia 15.

VITAL STATISTICS

Of Eight Large Towns in Ireland, for Four Weeks ending Saturday, July 17, 1880.

Towns	Population in 1871	Births Registered	Deaths Registered	DEATHS FROM ZYMOTIC DISEASES							Annual Rate of Mortality per 1,000 Inhabitants
				Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhoea	
Dublin, -	314,666	946	771	53	28	44	2	29	28	9	31·9
Belfast, -	182,082	488	357	—	8	2	1	19	14	16	25·5
Cork, -	91,965	191	210	—	—	17	4	4	13	4	29·7
Limerick, -	44,209	97	62	—	—	—	—	—	—	3	18·2
Derry, -	30,884	79	76	—	—	1	—	10	1	—	32·0
Waterford, -	30,626	60	47	—	—	2	—	—	—	1	20·0
Galway, -	19,692	32	27	—	—	—	—	—	1	—	17·8
Sligo, -	17,285	30	20	—	—	1	—	—	—	2	15·0

Remarks.

In Londonderry, Dublin, and Cork the rate of mortality was unsatisfactorily high; in Belfast it was high; in the remaining towns it was moderate or low. The average annual death-rate per 1,000 represented by the deaths registered in the sixteen principal town districts of Ireland was 26·9, whereas that in twenty large English towns, including London

(in which the rate was only 19·0), was 19·1. In Glasgow the rate was 20·7, and in Edinburgh it was 19·8. Very different was the return for Dublin—namely, 31·9 per 1,000, or—omitting the deaths (31) of persons admitted into public institutions from localities outside the registration district—30·5 per 1,000. Within the municipal boundary of Dublin the death-rate so corrected was 34·0 per 1,000. Zymotic affections were again more than ordinarily fatal in the Irish metropolis—the deaths caused by them numbered 220, compared with an average of 118·8 in the corresponding period of the preceding ten years. Smallpox and scarlatina were particularly fatal, and measles, whooping-cough, and fever each caused about one death per diem. Of the 28 deaths attributed to fever, 11 were returned as due to typhus, 11 to enteric, and no less than 6 to so-called “simple continued fever.” Scarlatina was fatal in Cork, and whooping-cough in Belfast and Londonderry. Except in Belfast the summer increase of the fatality of diarrhœa is not noticed. This is due to the prevalence of heavy showers and absence of extreme heat. In London the increasing mortality from diarrhœa with the advancing season is well shown—the weekly number of deaths being 32, 64, 93, and 165 respectively. In Dublin the deaths from diseases of the respiratory organs were 112, against an average of 83·4 deaths in ten years. They included 78 deaths from bronchitis (average = 59·8) and 23 from pneumonia (average = 14·3). At the close of the period on Saturday, July 17, the number of cases of epidemic disease under treatment in the principal Dublin hospitals were—smallpox 104, measles 18, scarlatina 57, typhus 29, typhoid 12, and pneumonia 9.

METEOROLOGY.

*Abstract of Observations made at Dublin, Lat. 53° 20' N., Long. 6° 15' W.,
for the Month of June, 1880.*

Mean Height of Barometer,	-	-	-	29·949 inches.
Maximal Height of Barometer (on 1st at 9 p.m.),	-	-	-	30·356 „
Minimal Height of Barometer (on 20th at 6 p.m.),	-	-	-	29·520 „
Mean Dry-bulb Temperature,	-	-	-	56·7°
Mean Wet-bulb Temperature,	-	-	-	53·2°
Mean Dew-point Temperature,	-	-	-	50·0°
Mean Elastic Force (Tension) of Aqueous Vapour,	-	-	-	·361 inch.
Mean Humidity,	-	-	-	78·7 per cent.
Highest Temperature in Shade (on 29th),	-	-	-	69·2°
Lowest Temperature in Shade (on 5th),	-	-	-	40·8°
Lowest Temperature on Grass (Radiation) (on 11th),	-	-	-	36·2°
Mean Amount of Cloud,	-	-	-	68·0 per cent.
Rainfall (on 18 days),	-	-	-	2·166 inches.
General Directions of Wind,	-	-	-	E. & W. by N.

Remarks.

In most respects June was a favourable month, of average mean temperature, the rainfall and number of rainy days being somewhat in excess of the average. In Dublin there was no extreme heat, and although the air was warm by day and night during the latter half of the month, the thermometer never reached 70° in the shade. In the first fortnight some very cold nights occurred—on the 5th the sheltered thermometer fell to 40.8° . At 9 a.m. of the 8th temperature was as low as 42.7° , and a cold rain was falling. In the afternoon much hail fell, accompanied with thunder to the south of the city. Next day the loftier of the Wicklow mountains, including Djouce and Kippure, were capped with snow. On this day a severe thunderstorm passed to N.W. of Dublin, but in the city only a few drops of rain fell. From the 12th to the 18th fine, dry, and often bright weather prevailed throughout Ireland. On the 19th, however, an unsettled, showery, thundery period set in. The nights were usually mild and summerlike, but in the day-time there were clouded skies and frequent showers. On the 21st lightning was seen at night over the sea. On the 22nd distant thunder was heard, and at 11 30 p.m. a bright lunar rainbow became visible. Between noon and 1 p.m. of the 23rd a heavy thunderstorm prevailed to N. and N.E. of Dublin, and at 1 30 p.m. torrents of rain fell in the western districts of the city, accompanied with thunder and lightning. From the 25th to the close of the month the weather was not so unsettled, although showers continued very prevalent at intervals. Hail fell on the 7th and 8th. Thunder was heard on the 8th, 9th, 22nd, and 23rd. There was a vapour fog on the morning of the 21st. Brilliant rainbows were seen on the 22nd. The rainfall in Dublin in the six months ending June 30, 1880, amounted to 11.118 inches, and was distributed over 88 days.

COD-LIVER OIL AND IODOFORM.

DR. FONSSAGRIVES, having ascertained that the addition of iodoform and essence of anise effectually masks the repulsive taste of cod-liver oil, always employs this combination in cases where the union of iodine with cod-liver oil is indicated, iodine being conveyed into the economy in a larger proportion by means of iodoform than by any other preparation. Patients, after comparing this mode of taking cod-liver oil with the ordinary modes, unanimously declare in favour of the taste and smell of the former. To one hundred grammes (nearly three ounces) of the oil a quarter of a gramme (about four grains) of iodoform and ten drops of the aniseed are added.—*Prog. Méd. and Med. Times and Gaz.*, July 2, 1880.

PERISCOPE.

Edited by G. F. DUFFEY, M.D., F.K.Q.C.P.

ON THE COMBINATIONS OF BRIGHT'S DISEASES.

THE view that each case of Bright's disease belongs to some distinct class has recently been called in question by Weigert, Senator, and others, who have shown that many cases do not correspond to the typical schema of any of the simple forms. Dr. Bull in a long paper treats of those cases which he considers not as transitional forms, but as combinations of two or more of the simple forms. He examines first the combination of atrophy with amyloid degeneration. He holds that in these cases the atrophy is always primary, and that the so-called third or atrophic stage of the amyloid kidney does not exist. Against Weigert he urges that the existence of interstitial processes in tumefied amyloid kidneys is no proof that these would subsequently advance to atrophy; and in common with Billroth he maintains that questions connected with Bright's disease cannot be altogether decided by considerations of pathological anatomy. He also doubts the conclusiveness of the cases of contracted amyloid kidneys in which the glomeruli are not atrophic, and thinks that in these a proof of primary amyloid degeneration with secondary atrophy cannot be found. The author next studies the combination of granular atrophy with parenchymatous nephritis. He discusses the statement of Mahomed that pure granular atrophy is unaccompanied by albuminuria or other clinical symptoms of Bright's disease, and that when these occur their presence is always due to a combination with parenchymatous nephritis. He does not agree with the extreme views of Mahomed, but points out the important fact which follows from the observation of Mahomed confirmed by his own—namely, that pure granular atrophy exists without being diagnosed, and that even in very young subjects to a degree which is far from being suspected. The cases recorded by Leube, Moxon, Rooke, and Dukes, and many others, in which albuminuria was found in apparently healthy persons, were probably instances of commencing granular atrophy. Now, if it were established that all these albuminurias hitherto overlooked are really the sign of commencing renal atrophy, this fact would be of great importance in the question of the combinations of Bright's disease in so far that the existence of secondary atrophy would become very doubtful, not only in amyloid disease, but even in parenchymatous nephritis. Later experience has confirmed the author in the view which he put forward many years ago, that those cases usually considered as parenchymatous nephritis with secondary atrophy are

really examples of combinations of primary atrophy with secondary parenchymatous nephritis of varying intensity. The statement of Senator that in primary renal atrophy the hypertrophy of the heart is not excentric is not confirmed, nor are the recent views of Bamberger, who would reduce all forms of Bright's disease to one. In the triple combination of renal atrophy, amyloid degeneration, and parenchymatous nephritis, the atrophy is always the first link in the chain, the amyloid degeneration is generally the second, but may in rare cases, of which the author cites one, be preceded by parenchymatous nephritis. Lastly, the combination of amyloid kidney and parenchymatous nephritis is considered. Mere fatty degeneration of epithelium is no proof of parenchymatous nephritis, but may be due simply to want of oxygen caused by the narrowing of the diseased blood-vessels. Fatty degeneration due to nephritis differs from this simple fatty change by the invariable coexistence of interstitial cellular infiltration. The author thinks that the distinction of stages in amyloid kidney must be totally abandoned. Amyloid degeneration may, although rarely, be combined with acute hæmorrhagic nephritis, but is very frequently combined with chronic parenchymatous nephritis. The amyloid disease is most commonly primary, but the opposite order is sometimes followed, or both conditions may run a parallel course. In many cases it is difficult to determine with certainty the order of events. The possibility of the amyloid degeneration being caused by the albuminuria is admitted, although such a causation cannot as yet be considered as proved. Some rules for diagnosis are given, but the author admits that so far a certainty of what combination is present is not always, or even often, attainable during life. Retinitis never occurs in uncomplicated amyloid degeneration. In uncombined forms of disease uræmia occurs only in parenchymatous nephritis. It may occur in all combinations, most commonly in that of atrophy with nephritis, and certainly much more commonly here than in pure parenchymatous nephritis. It is rare in atrophy with amyloid degeneration, and very uncommon in amyloid degeneration combined with nephritis.—*Nordiskt medicinskt Arkiv*. Elfte Bandet, Häftet 3, 4.

J. M. P.

THE USE OF HYDROBROMIC ETHER IN LABOUR.

IN some instances in labour both ether and chloroform will produce, in certain females, so much relaxation that, if there is the slightest tendency to hæmorrhage, it will be very much increased. To test the influence of hydrobromic ether, Dr. Turnbull, of Philadelphia, administered it, February 24, 1880, to Mrs. R. T. P——, aged thirty, a lady with a narrow pelvic outlet and very rigid os uteri, who had been in labour with her fourth child for nine hours, having made but little progress. The hydrobromic ether was used in tablespoonful quantities, when the pains

were most intense and distressing, and gave as prompt relief as ether, and yet it did not interfere in the least with the expulsive efforts. Her pulse was only increased six beats; no apparent disturbance of her respiration, only a feeling of fulness in the chest. The baby (a female) was born full of life and vigour, and cried lustily. There was a slight laceration of the perinæum, as the occiput was pressed strongly upon the tissues. The patient had not a bad symptom from the use of this form of anæsthetic, and there was no sickness of the stomach. The whole quantity employed was five tablespoonfuls. There was no hæmorrhage, and the placenta was expelled with but slight traction. This, he believes, is the first time of this agent having been employed for this purpose.—*Independent Practitioner.*

S. W.

GLYCERINE IN FLATULENCE, ACIDITY, AND PYROSIS.

DRS. SYDNEY RINGER and MURRELL have largely employed glycerine in the above conditions, and found it very useful. In some cases it removes pain and vomiting. They suggest that it acts by retarding or preventing some forms of fermentation and of putrefaction. That glycerine does act in this manner has been previously shown by several observers. Glycerine, however, does not prevent the digestive action of pepsin and hydrochloric acid; hence, whilst it prevents the formation of wind and acidity, probably by checking fermentation, it in no way hinders digestion. A drachm to two drachms is administered either before, with, or immediately after food. It may be given in water, coffee, tea, or lemon and soda water. In tea and coffee it may replace sugar, a substance which greatly favours flatulence, as indeed does tea in many cases. In some instances a cure does not occur till the lapse of ten days or a fortnight.—*Lancet*, July 3, 1880.

GENERAL EXANTHEMA CAUSED BY CALOMEL.

ENGELMANN (*Berl. klin. Woch.*, 1879, No. 43) reports the case of a man, forty-two years of age, who took three doses of calomel of 15 centigr. ($2\frac{1}{2}$ grains) each, in the afternoon. Two hours afterwards his face became dry and swollen, and the skin red. These phenomena rapidly spread all over the body. The following day the patient presented the appearance of a person suffering from serious erysipelas—the face swollen, the eyelids could with difficulty only be opened, the skin was of a brilliant red colour, the conjunctiva injected, the tongue white; while the entire buccal and pharyngeal mucous membrane presented an intense red colour. This extraordinary redness of the skin extended all over the cutaneous surface, but was more marked on the parts exposed to the light. The axillary temperature was 40° C. (104° F.), and the pulse 120. The patient complained of weakness, anorexia, and of a sensation

of burning and pricking all over the body. The physician in attendance, much puzzled by these strange phenomena, was aided in the diagnosis by the patient himself. He must have taken some mercury, he said, in the white powder; and he explained that he was extremely susceptible to the action of mercury. On two former occasions he had experienced the same symptoms—once after having taken some mercurial pills; a second time after having spent the evening with some friends who had amused themselves by burning “Pharaoh’s serpents.” The affection got well, spontaneously, in eight days. There was desquamation of the cutis.—*Gaz. Hebdom.*, 19 Mars., 1880.

NOVEL TREATMENT OF RHEUMATIC FEVER.

BASED apparently on the success claimed to have been obtained by the treatment adopted in two imperfectly reported cases of rheumatic fever, Dr. Crowther, of the General Hospital, Hobart Town, recommends hot baths containing washing soda as almost a specific remedy in this disease. The patient is to be placed in a bath, as hot as can be comfortably borne, to which half a pound of common washing soda is added. After remaining ten or fifteen minutes in the bath the patient is then lifted into a warm, dry blanket, and replaced in bed. Profuse diaphoretic action follows, along with diuresis, to the almost immediate relief of the patient; pains rapidly leaving affected joints, and sleep following. Not a single bad symptom, it is stated, has ever taken place during or after this bath.—*The Australian Med. Jour.* April, 1880.

THE DIGESTIVE ACTION OF ANIMAL TISSUES BY PAPAÏNE.

IN August of last year a communication was brought before the French Academy of Sciences by MM. Würtz and Bouchut, giving the result of their discoveries on the sap extracted from a palm tree in South America, the *Papaya carica*. They concluded that the sap or juice must contain a digestive ferment analogous to that secreted by the carnivorous plants, as milk, fibrin, &c., were digested by it in larger quantity than by pepsin secreted by the stomach; it also shows this advantage over pepsin, that it dissolves proteids, not only in the presence of a small quantity of acid, but in a neutral medium, and even in one slightly alkaline. Since then M. Bouchut has conducted a series of experiments to test the digestive power of papaine on living animal tissues. He injected 10 and 20-per cent. solutions of this substance into the brain, muscles, &c., of animals. The parts contiguous to the injections became softened, pulpy, and gelatinous. He then tried it in the case of pathological tumours—first in three cases of adenoma of the neck. The effects of the injections were in the course of a couple of hours very painful, and they provoked a violent febrile attack. At the end of three days the glandular swellings were softened and converted into abscesses, which were opened with a

knife and cured. At the Hospital St. Louis (Paris), in three cases of cancer of the breast, injections of papaine resulted in the softening and digestion of the hard masses of disease. The fluid products, drawn off by an aspirator, from one of these cancers which was as large as a fist, were examined at the laboratory of the Faculté de Médecine, and appeared to be veritable peptone.—*Revue Médicale*. S. W.

THE USEFULNESS OF HOT WATER IN SURGERY.

IN connexion with the details of an operation for the removal of a large myxo-sarcomatous tumour of the superior maxilla, in which the flaps and cavity left by the operation were freely sponged with hot water, Dr. Neilson calls attention to the rapidly-accumulating facts relative to the usefulness of this agent in surgery. By *hot* water is not meant a temperature of 70°–90°, but so hot the hand can scarcely be borne in it. The application thus made is simply magical (Dr. Neilson says) in stopping oozing; and anyone who has seen the beautiful cleanliness of a large flap, and has noted the delicate pink lymph covering the same, subsequent to a *hot* cleansing, would never desire to return to cold water.—*Amer. Jour. Med. Sci.*, April.

NEW PREPARATIONS AND SCIENTIFIC INVENTIONS.

A Stand with Pelvis for Demonstrating the Mechanism of Labour.

By H. MACNAUGHTON JONES, M.D., F.R.C.S.I. & Ed.; Professor in the Queen's University, Ireland.

IN demonstrating to a class the various stages and the relative positions of the foetal skull in passing through the pelvis, I contend that it is best for the student to learn with the articulated pelvis, and that he should be always made to follow the movements in the pelvis, first watching his teacher and then working out the process—the deviations from the natural, difficulties in transit, and the object of interferences—for himself. The double act of imagination, as regards the usual obstetric position, in this country and the axis of the child is of course the beginner's "pons." "It involves," as Leishman truly observes, "a somewhat complex mental process." We have to allow for the posture of the woman, lying as she does horizontally, or with the long axis of her body at right angles to that of the accoucheur. Remembering my own early difficulties, I had constructed for my class for demonstration and for individual use in study the stand figured below. It is light and portable, metallic, hollow, with a sliding rod which moves up and down, and the height of which can be regulated by the screw (a). Fig. 1 (from a photograph) shows

knife and cured. At the Hospital St. Louis (Paris), in three cases of cancer of the breast, injections of papaine resulted in the softening and digestion of the hard masses of disease. The fluid products, drawn off by an aspirator, from one of these cancers which was as large as a fist, were examined at the laboratory of the Faculté de Médecine, and appeared to be veritable peptone.—*Revue Médicale*. S. W.

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