ing in bed, and tenderness over upper dorsal vertebrae, increased by pressure. The bowels were constipated. Calculated 4 or 5 polychromic pills, nitro-hydrochloric acid, good diet and rest, were successful in affording relief.

On the 31st of August, I was again sent for to examine an abscess by the side of the anus, which had a fine fringe of hemorrhoids. Suspecting its true nature, and knowing the bowels had been well opened the previous day, I at once laid open the abscess, from which about half an ounce of offensive pus escaped. I introduced my armed blunt probe, tied the silk, and completed the operation before my patient knew what was the matter with her. The internal opening was about the size of a silver threepenny, and between it and the outer I could feel a large pulsating vessel. I kept her in bed, and under the influence of acetate of ammonia and opium for a few days. The ligature came away on September the 4th; no bad symptom was set up, and she has been in capital health ever since.

Case II. Mrs. S., a thin, exsanguineous woman, who had foolishly been sucking her child for the protracted period of two years, sent for me on the 18th of December, 1807, in consequence of the bursting of an abscess about an inch and a half from the anus, and the discharge of some very sickening matter. Pus had escaped from the bowel for three weeks. Nine months previously she had had a fall against the edge of a stone step, which caused pain at the coccyx. The armed, blunt-pointed probe was passed up the sinus to the bowel, about three inches above the sphincter, but no opening could be found, though the probe traversed between the coats of the intestine. A small mass of matter was flushed through the bowel, brought down, and the ligature tied. She was kept in bed under the influence of acetate of ammonia and opium for a few days; but little disturbance of the natural functions survived. The ligature came away on January the 9th, and good diet, with gentle exercise, soon established health.

Case III. Mr. Sharp, resident surgeon to our dispensary, requested me to operate on him for fístula in ano in August last. He had a fístula, the inferior opening of which was about an inch from the anus, and the superior opening two inches from it, and a half up the gut. I passed the armed blunt-pointed probe in the direction of the anus, and ligature a large pile. The operation was performed in my surgery, and Mr. Sharp afterwards walked home, a distance of some five hundred yards. On the next day, he went to see some of his near patients, and continued to discharge the greater part of his duties without intermission. The ligature came away on the 6th of September, after which he got much stouter than he had been for some time. Mr. Sharp is a married man, and has passed his fortieth summer; his health has been deteriorating for a considerable time, and he is a martyr to gout and bronchitis; moreover, he is a cripple from early hiccup disease, and has the long head of the biceps of his right thigh.

A more unfavourable case could not easily occur, and for such a patient few surgeons would have recommended the knife. As far as the fístula was concerned, the treatment by ligature in this case was all that could be desired.

Mr. Sharp expresses himself as being much pleased with my manner of proceeding, and has recommended his father to come under my care, the old gentleman having long tolerated a fundamental nuisance, the surgeon's knife abhorring.

PATOLOGICAL CONTRIBUTIONS TO MEDICAL JURISPRUDENCE.

By William Boyd McIntosh, M.B.Lond., late Resident Physician at St. Marylebone Infirmary.

III.—SOPOR LAPSING INTO COMA. EXTENSIVE DISEASE OF KIDNEYS. (INJECTION OF URINE?).

A. D., aged 28, a washerwoman, was admitted into the Marylebone Infirmary on the 8th of September, 1857. She was cold, pale, and haggard; and I was informed that she had had a fit a short time previously. There was sopor, but not actual coma, as she answered as to her name, when rousted, but said nothing further. The pulse was 100, full, but weak and compressible. The temperature was 11°, 12°, noisy, greasy, with fond ridges. The pupils were contracted, and unable to light. The face was strongly marked. There was considerable oedema of the feet and legs. The mouth was drawn; but there was no paralysis or convulsion of the limbs. The patient, however, had the grip of life, being able to save himself by means of his finger and thumb. The urine was of a strong yellow colour, turbid, with a most offensive smell.

Another specimen of urine was examined, exhibiting the following results:—

1. The specific gravity was 1031.
2. Leucocytes were present, few in number.
3. The white corpuscles were numerous.
4. There was a small quantity of albumin present.
5. The chlorides and phosphates were present in a marked degree.

The urine was of a strong yellow colour, turbid, with a most offensive smell. The albuminous fluid was of a yellow colour, turbid, with a most offensive smell. The patient said he had not relieved himself for three days. He had not eaten food for several days. He had had no sleep for several days. The patient was a gentle, easy-going person, and had been in a state of discomfort for several weeks.

The urine was of a strong yellow colour, turbid, with a most offensive smell. The albuminous fluid was of a yellow colour, turbid, with a most offensive smell. The patient said he had not relieved himself for three days. He had not eaten food for several days. He had had no sleep for several days.

P.S.—The patient was removed to a hospital for the insane, on the 12th of September, 1857. He died on the 16th of the same month.

Mr. Sharp expresses himself as being much pleased with my manner of proceeding, and has recommended his father to come under my care, the old gentleman having long tolerated a fundamental nuisance, the surgeon's knife abhorring.
energetic, on account of the predisposition of the patient, from the associated toxemia? The symptoms accorded equally with uraemic and narcotic poisoning; but, when no special treatment is adopted, the latter, I believe, seldom proves fatal after eight hours. But it is important to be aware that, whether the woman sank from disease alone, or the combined effects of disease and poison, must ever remain an equivocal question.

ON INHIBITORY INFLUENCE.

By C. HANFIELD JONES, M.B., F.R.S., Physician to St. Mary's Hospital.

In the Proceedings of the Royal Society, p. 307, No. 39, there is an highly interesting communication from Mr. Joseph Lister respecting "the functions of the visceral nerves, with special reference to the so called inhibitory system." He takes up the very subject that we have been discussing, and says: "It is known that a section of the nerve fibres whose sole function is to arrest or diminish action, and ex- amines it fully with repeated testing by experiment. The result to which he arrives, as given at the end of his paper, is, that it may be regarded "as a fundamental truth not yet ex- plained, that one and the same affective nerve may, according as it is operating mildly or energetically, be capable of producing the functions of the nervous centre upon which it acts. It is, I believe, upon this that all inhibitory influence depends, and I suspect that the principle will be found to admit of a very general application in physiology." Mr. Lister also foresees the bearing of this principle on pathology, and notices its prob- lematic concern in the excitement of inflammation through the medium of the nervous system at a distance from the irri- tated part.

I am strongly inclined to believe that these views will prove to be of first rate importance in pathology, and will be found applicable to a multitude of common instances. However, I cannot but think that the principle, as propounded by Mr. Lister, requires some modification. What this is I will pre- sently show, but I will first detail some experiments illustrative of inhibitory influence.

The transmission of an interrupted current of galvanism through the lower dorsal region of the spine, when of a certain strength, caused complete relaxation and quiescence of the small intestines which had previously been in active motion, while the muscles of the limbs were thrown into spasmotic action, but on the discontinuance of the galvanism, the previous intestinal movement returned. A weaker current being now passed, the result was, that the action of the intestines was markedly increased. Violent struggling of the animal had the effect of preventing the current from producing a quiescent state of the intestines. This, as Mr. Lister remarks, "goes to prove that the inhibitory influence is certainly some- times exerted in the natural actions of the animal, and is not merely the result of artificial stimulation." The follow- ing quotation from Bernhard's Lectures, systema nervosum, tom. ii. p. 392, shows the production of analogous phenomena in the cardiac and respiratory actions. "In a hound, the two nervi vagi were exposed, raised on a loop of thread, and galvanised both at once without cutting them. During the galvanisation, the contraction of the heart and the respiration were arrested, and the eyes became prominent, showing that there is, at the same time, centripetal and centrifugal action in the vagus. In another dog, the vagus being divided in the middle of the neck, the upper end and the lower were sucess- sively galvanised. The galvanisation of the lower end stopped the respiration. All the galvanisation of the upper end stopped the respiration, and let the circula- tion go on."

The experiment performed by Weber, several years ago, of slowing or arresting the action of the heart by passing a gal- vanic current through the medulla oblongata, is quite to the same effect as the preceding. From the circumstance that direct irritation of an intestine lying relaxed under inhibiting influence, produces local contraction not propagated to the adjacent parts, Mr. Lister concludes that "the inhibitory influ- ence does not operate directly on the tissue, but upon the nervous apparatus by which its contractions are, under ordinary circumstances, elicited."

Taking now as our basis the above cited experiments, I propose to refer to various pathological facts which seem to me to require explanation from the above views, and to confirm and modify them in their turn.

1. I know that the effects of Graves's Lectures, p. 605, that exposure to a blast of cold wind for some time produces amaurosis, which was cured not by depletion or mercury, but by the stimulation of the skin of the face and temples.

2. Paralysis of the pectoral dura, from like exposure, is still more common. This exposure is accompanied by the taking of the pulse around the facial nerve in the bony canal it traverses; but the supervision of the paralysis, as in some cases cited by Romberg from J. Frank (vol. ii. p. 282), is often too sudden to warrant our accepting this explanation as generally true.

In a case alluded to by Dr. Gull, the two paralysis- causing vision and hearing were both impaired by expos- ure of one side of the face to cold.

3. Irritation of the bowels, as from worms, may cause amaurosis or deafness; or from enteritis, paralysis of the lower limbs.

M. Brown-Séquard cites several instances in which a neur- algia of a sensory nerve, to all appearance, produced paralysis of a motor.

6. Dr. Copland, article Paralyse, p. 21, mentions a case of "general palsy of the powers of voluntary motion," in which paralysis was absent.

The functions of the brain were unaffected, and no evidence of inflammatory action, or of congestion in the spine, could be detected. Sensibility of the surface was retained, and command over the sphincters. He was treated first on the supposition of a destroyed effusion of liquor, and continued having taken place in the spinal canal, but without receiving any benefit. He ultimately quite recovered by having frequent recourse to warm baths containing stimulating substances.

6. Dr. Graves quotes a case from Dr. Hutton, in his Lectures on Endemics, p. 407, 408, in which a man had incomplete paralysis after exposure to cold, wet, and fatigue, as well as a very close stricture. The latter was dilated, and a very remark- able amendment took place in his back and lower extremi- ties in a very few days after the introduction of the instru- ment, in fact, it was, as he afterwards said, a sort of cure, etc. completed his cure." Dr. Graves comments thus: "you at once perceive the extreme importance of this case; it bears directly on the question before us, and proves that urethral irritation may, as well as inflammation of the kidney, give rise to paralysis." He had previously referred to Mr. Stanley's cases of paralysis from renal disease which have evidently the same import.

7. The same eminent authority says (vide p. 407,) that he has recently met with a number of cases in which paralysis was evidently brought on by a great communication of moisture by Dr. Hunt to Mr. Stanley, to show that the same paralysis may result from uterine disease.

8. In his tenth Lecture, Dr. Brown-Séquard has the following remarks: "The sudden death which sometimes occurs when very cold water is drunk in a warm day, or the sudden blow on the abdomen, of a sudden perforation of the stomach or intestine, of a wound of some abdominal viscous (without notable hemorrhage), etc., seems to be due to a reflex stop- ping of the heart's action. I have made a great many ex- periments which show positively that a sudden excitation of the abdominal sympathetic nerve kills, or diminishes the movements of the heart by a reflex action. The excitation goes up to the spinal cord chiefly along the great splanchnic nerve, and ascends the spinal cord until the place of origin of the par vagum, and through this pair of nerves it comes to the heart. The constriction of the muscles of the heart and the constriction of the vessels in the extremities or the abdominal vessels may be produced by a reflex action. Any kind of irritation to be made on the abdominal sympathetic nerve without stopping taking place in the heart. In some animals the irri- nation of the irritation of the sympathetic in the abdomen is much more marked than in the heart, it is probable, in the latter, a gentle drop down pulseless, in the most com- plete syncope, from a pain in the abdomen." In two ex- periments which I recently performed on cats, injecting half a drachm of citric acid dissolved in water into the peritoneum, death ensued very speedily, and the heart stopped in a slow movement of dark blood on both sides. There was no other morbid appearance. I am, of course, aware of Dr. Gull's interesting observations of the state of the spinal cord in paralysis from renal disease, but I do not think his view is generally applicable. In one case of paralysis from exposure to cold and wet, where death oc-