perverted, though not entirely lost. If this be true, it must result that every alleged criminal act should be held responsible to the law; extenuating circumstances being admitted under the plea of insanity, and punishment awarded according to the degree of proved mental aberration. To admit the contrary, would be a direct encouragement to crime and dangerous to the public weal. Both law and medicine are concerned in the solution of this important problem. Law deals with the applicability of the penal statutes; and medicine, personified in the experienced physician, must be the best exponent of psychological phenomena, since the structures and functions of man, and the physical and mental derangements to which he is subject, are the objects of the study and practice of his professional life. When skilled in forensic investigations, who can be found better qualified to detect the crafty malingering and to elucidate the truth? now proving the offence to be the act of an unfortunate aberrate, and now only the culminating crime of a life of hardened villainy. But to give due weight to the judgment of such a man, he must take an *official position* in the judicial inquiry. Trial by jury, so dearly cherished by Englishmen as the palladium of our civil rights, is sorely taxed in cases of disputed insanity. If to define sanity and insanity be a puzzle to the most acute metaphysician; if to fix the boundary in many cases be simply impossible, is it reasonable to expect a jury composed of men of ordinary intelligence satisfactorily to dispose of cases involving subtle distinctions, and replete with doubts and difficulties even to the most accomplished medical jurist?

We need not wonder that medical evidence is not always complimentary to our profession, since all legally qualified practitioners are not psychological experts, and from the nature of their professional engagements and the absence of special training they cannot be; and yet they are called to give evidence and to express opinions for the guidance of juries on the issues of which hang life or death.

At the trial of Miss Edmunds, important medical evidence in favour of her insanity was adduced; but it was overruled, the unhappy prisoner was convicted and condemned, and then submitted again to medical inquiry and ultimately relieved. Surely this reproach to our jurisprudence cannot endure. I venture to ask the members of this society to concur with me in asserting the time to have arrived when in the name of justice and humanity, and for the honour and dignity of our profession, we are called to urge the legislature to investigate and revise our laws in relation to criminal jurisprudence, and specially with regard to cases of questionable sanity.

CASE OF APHASIA PRODUCED BY EMBOLISM OF BRANCHES OF THE INTERNAL CAROTID: SEQUEL AND POST MORTEM APPEARANCES.

By ARTHUR RANSOME, M.D., M.A., Manchester.

THE particulars of this case were reported in this JOURNAL on April 13th, 1864. Briefly summed up, they were as follows.

Mrs. R., aged 36, was confined February 12th, 1864. Profuse hæmorrhage and slight faintness followed, but she recovered rapidly, and sat up on October 25th. On March 1st, she was seized with slight right hemiplegia, and lost the sense of smell and the power of speech. The pulse in the left wrist was scarcely perceptible, and the case was diagnosed by Dr. J. S. Fletcher as one of embolism. The attack produced extreme nervousness, but there was no apparent loss of intellectual power. She was treated with large doses of carbonate of ammonia, and in two days she could write on a slate. On March 5th, she could say a few words; and on March 6th, the sense of smell returned. From this date she steadily improved, but traces of the attack lasted her life; the face was slightly drawn to the left side; the left radial pulse was permanently diminished; and whenever she was out of health, her speech was slightly impeded. Her attendants stated that this symptom was worse in wet weather. She ceased menstruating three years ago; and for the last two years it became evident that ovarian cystic disease was gradually forming. This was twice tapped within the last five months; and, after the second tapping, as she was rapidly losing strength, it was decided that ovariectomy should be performed. Shortly after this decision, however, signs of mental derangement showed themselves—delusions of various kinds, visions. Her speech also was again much affected; at times she could not make herself understood; at others, she could speak almost naturally. No peculiarity as to grammatical parts of speech was noticed from first to last. As the mental disturbance varied in intensity, it was thought possible that it might be produced, or at least aggravated, by the presence of the tumour; and it was accordingly determined, after consultation with Dr. Henry Simpson and Mr. Southam, that the operation of ovariectomy

should be performed. This was done on November 4th, 1871, at 9.30 A.M., by Mr. Southam, assisted by Mr. Jones, of Bowden. No special difficulty was met with, and she seemed to bear the operation well. She had no sickness nor faintness; but the hallucinations continued, and at 5 A.M. on November 5th she became very restless. At 8 A.M., the nurse noticed "a change;" and at 10 A.M., when I saw her, she was unconscious; breathing stertorous; pupils contracted (perhaps from some morphia which she had taken); pulse 108; temperature 105.5 deg. She died at 4.30 P.M. without convulsions.

POST MORTEM EXAMINATION twenty-four hours after death.—The head only was examined. The membranes of the brain were healthy, but excessively congested with dark venous blood, and all the venous channels of the brain were in like manner engorged. The substance of the brain was otherwise apparently healthy throughout. It may be stated that the anterior lobes especially were carefully examined. The left internal carotid artery and its primary branches were evidently much larger than those on the right, and somewhat bulging in places, as if they had been over-distended. They contained several patches of atheromatous deposit. No special difference could be observed in the smaller branches. The left vertebral artery was also much enlarged, but no trace of an embolon or of a clot could be found.

REMARKS.—This case is interesting, both as showing the effects of embola in the cerebral vessels, and from its bearing upon the subject of aphasia. The clot of blood detached from the heart must have been very friable in its nature, and, from the symptoms detailed in the previous report of the case, it probably first rested at or near the origins of the left common carotid and of the left subclavian; it was then broken up, and one portion almost arrested the flow of blood in the left brachial artery, whilst another shot into the left internal carotid, and must have been still further divided, since there was evidence in the condition of the arteries that several of the smaller branches had been occluded. The force of the blood-current must then have dilated the arteries behind the several obstructions, and the subsequent enlargement of the left vertebral artery which then supplemented the small arterial flow through the carotid, would inevitably increase the pressure upon the walls of the occluded arteries, and would both dilate them and make them more liable to disease. It is obvious that the peculiar structure of the cerebral vessels would make them more liable to this dilatation than the other arteries of the body.

H. Meissner (see abstract of paper in the Sydenham Society's *Year-Book*, 1863, p. 138) states that it is most usual for coagula to dissolve without producing any alterations in the parts adjacent to them; and that the walls of the vessels are for the most part unaltered, as far as the unaided eye can perceive. Other observers, however, have noticed tissue-changes after prolonged embolism, but I have not discovered any notice of the permanent dilatation of embolised arteries on the cardiac side of the clot.

The case does not throw much light upon the causes of aphasia, except that the chief arteries obstructed would be those arising from the middle cerebral, and especially those supplying the anterior portions of the left side of the brain. Thus it so far supports the theory that the parts of the brain chiefly educated to the faculty of speech are to be found in the left anterior lobe. Similar cases of great interest are recorded by Dr. Hughlings Jackson (*Medical Times and Gazette*, August 13th, 1864). It may be remarked, also, that in the fact that the loss of power of speech arose from stoppage of the circulation through the left brain the case resembles those noted by Dr. Bateman (on *Aphasia*, p. 163), in which aphasia followed ligation of the left common carotid.

With regard to the mental disorder, Trousseau (*Clinical Medicine*, Sydenham Society's Translation, vol. i, p. 274) states that when the hemiplegia endures even to a slight degree, there will always be more or less derangement of the mind. Thus, he says: "In aphasia there is not merely loss of speech, but there is also impairment of the understanding." And again: "The intellect of an aphasic patient is for ever damaged, just as the motility of one-half of his body is impaired, and he will always be lame mentally."

Meissner says that "recovery may be complete when one carotid trunk is affected, but is always imperfect when the obstruction is situated on the further side of the circle of Willis;" and "recovery is only possible when the collateral circulation is established before forty-eight hours have elapsed from the period of the obstruction."

In this case, with the exception of the slight facial palsy, and the occasional impediment of speech, recovery seemed to be complete; but it is possible that the hallucinations which appeared during the last few weeks of her life may have had something to do with the irregularity of the circulation left by the embolism.

Death seems to have been brought about in this case by the conges-

tion of the brain; and it is probable that this condition was in some way the result of the shock caused by the operation; but there is little doubt that the condition of the arteries would to some extent predispose the patient to this accident.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

HOSPITAL FOR WOMEN.

A SHORT REPORT OF THE OPERATIONS PERFORMED IN THE
YEAR 1871.

FOR the following report we are indebted to Mr. Walter Rigden, House-Physician.

There were during the year 120 operations of more or less severity. Of these, 8 patients died from the effects of the operations, 4 operations were followed by metrocervicitis or other pelvic inflammations, 1 by septicæmia, 8 effected a partial cure, and the rest were perfectly successful.

In speaking of ovariectomy and of exploratory abdominal incisions in general, I wish to state that, where a patient presented herself with an abdominal swelling, the nature of which was doubtful, and when it was clearly going on from bad to worse, and, unless interfered with, must have ended sooner or later in the patient's death, this patient would have her case fairly put before her, and, if she wished to run the risk, an exploratory incision would be performed, with the view of removing the tumour if found practicable. This may perhaps explain the rather large mortality in ovariectomy, and the number of cases which were either not ovarian tumours at all, or ovarian tumours which could not be removed.

Of ovariectomy there were 10 cases, of which 3 died—two within the first week, and the third sank about six weeks after the operation; the patient having delayed the operation more than two months, after she had been strongly recommended to have it performed at once, and having increased thirteen inches in circumference during the time, and become very much thinner.

Of exploratory abdominal incisions there were five.

CASE I was one of tubercular peritonitis with ascites. The patient was 34 years of age, had been married twice, and had four children—the last eight months before. She complained that the abdomen never became smaller after her last confinement; that it had increased very much during the last two or three weeks; that she had suffered at times from severe colicky pains in the lower abdomen in the middle line, and that she had felt very faint and sick at times. Her previous health was very good. When she was admitted, the abdomen measured 41½ inches in circumference half way between the umbilicus and pubes; it was very prominent in front, flaccid; the skin was quite loose and shining; it was dull and freely fluctuating in all directions, except at both flanks, where it was tympanitic, whatever the position of the patient. Fluctuation was perceived in the vaginal *cul-de-sac*, especially the posterior. The patient was very weak; the temperature and pulse were raised. An exploratory abdominal incision was performed; the intestines were matted together, and no tumour was found. The patient died twenty-five days after the operation, scarcely sooner than she probably would have done had no operation been performed.

CASE II was also a case of ascites, but the reason for the peculiar condition could never be cleared up. The patient first presented herself as an out-patient towards the latter end of 1870. She had been sterile for four years; she was 23 years of age. She complained of slight dysmenorrhœa and enlargement of the abdomen for a year and a half. Her general health was very good. The abdomen was enlarged, more on the left than on the right side. Dullness on percussion on the left side reached not quite to the middle line, and nearly up to the level of the false ribs on the same side. The rest of the abdomen was resonant; the uterus was normal in size and position. The opinion of the medical staff was unanimous in favour of the disease being ovarian. She was admitted six months afterwards, when the abdomen was very much larger, dull, and freely fluctuating all over except in both flanks. At this time it would have been exceedingly difficult to give a positive opinion; but, as the case had been seen earlier in the disease, there was not much doubt thrown upon the diagnosis. An exploratory incision was performed, and no cause for the localised distribution of

the fluid could be made out. She recovered well, and left the hospital nineteen days afterwards; the abdomen having refilled in the same way as it did before, the dullness being unaltered by position.

CASE III turned out to be a kidney-tumour, which was removed. The patient died of hæmorrhage on the sixth day. I omit further particulars, as the operator intends bringing the case before one of the societies.

CASES IV and V were both ovarian tumours, which could not be removed. Case IV had been tapped four times previously, and was refilling very rapidly. At the operation, rather firm adhesions were found to the abdominal walls in front, which were broken down with the finger for a short space round the wound; but, on pressing the hand into the interior of the cyst, it was felt to be immovably fixed in the pelvis, and it was therefore deemed unjustifiable to proceed with the operation. The patient died thirteen days after the operation, when it was found that the tumour was not at all adherent in the pelvis, but was tightly jammed in, and might have been removed. On operating on Case V, a large colloid mass presented itself after the peritoneum had been opened; it filled up the whole abdomen, was very vascular, and generally adherent to the abdominal walls, which were also infiltrated with disease. The patient died thirty hours after the operation, and there was found colloid tumours of both ovaries, with narrow pedicles. The substance of the tumours was very friable. There were no very firm adhesions, which, however, were general, and mostly in the neighbourhood of the spleen.

Of colotomy there were two cases; in one there was tight stricture of the rectum; consequent obstruction and stercoraceous vomiting for two days. The patient was relieved of the urgent symptoms, but sank from exhaustion eleven days after the operation. In the other there was cancer of the rectum, but no obstruction; and the patient was relieved from the operation and left the hospital.

Two glandular tumours of the buttocks were removed from one patient.

There was one case of vaginal lithotomy perfectly successful.

There was one case of removal of enlarged lymphæ.

Of operations for ruptured perinæum, there were six cases. Five were perfectly successful, and one was followed by septicæmia, and was only partially successful.

One case of operation for cystocele (Marion Sims) was unsuccessful, but the operation has since been repeated with considerable success.

In one case, a plastic operation for ulceration of the meatus urinarius conferred much benefit on the patient. There were six cases of removal of vascular tumours from the meatus urinarius.

Of two cases of operation for vesico-vaginal fistulæ, one was perfectly successful, the other only partially so. Two cases of operation on recto-vaginal fistulæ were both only partially successful.

There was one case of operation for very intractable vaginismus, which was perfectly successful.

There were 28 cases of division of the cervix. Three of these were in cases of fibrous tumour of the uterus; the remaining 25 were for dysmenorrhœa. Of these, all but two were successful in removing the symptoms entirely. In one, the operation was followed by pelvic abscess, which however rapidly burst and discharged itself, and the patient left the hospital a month after the operation.

There were five cases of operation for polypus uteri—one followed by metrocervicitis.

Three patients were operated on for intrauterine fibrous tumours. In two of these—a fibroid and a fibro-cystic—the tumours were removed *per vias naturales*; in the other the tumour is in process of being removed.

In four cases, small growths (mucous polypi or fibrous tumours) were removed from the cervix. In one of these the operation was followed by metrocervicitis.

There were 11 cases of amputation of the cervix uteri; 8 were for epithelioma.

In nine cases, operation for hæmorrhoids was performed.

There were four cases of forcible dilatation of stricture of the rectum; three cases of operation for fistula *in ano*; and three of operation for fissure of the rectum.

The operation of paracentesis abdominis was performed three times for ovarian tumours which were subsequently operated on—once for ascites, due to an enlarged spleen, and once for a case of purulent disease of the kidney.

A cyst in the groin was tapped; also a hydatid cyst in the pelvis; and two cases of pelvic abscess—one with success, the operation in the other being followed by fresh inflammation. Of two cases of tapping of pelvic hæmatocele, one was perfectly successful; in the other, the operation, though not doing the patient any good, did no harm.