upon the liver to perform; or else it increases the supply of material in the connective tissue of the gland, which sets up irritation by its presence because it is not in accord with the wants of the tissue. The result of that irritation is so called chronic inflammation of the organ; then follows contraction of the new tissue and cirrhosis.

The Lungs.—It lessens the amount of carbonic acid, and the watery vapour, which ought to be excreted. It alters the molecular constitution of the lung-tissue, giving rise to chronic bronchitis and emphysema.

The Heart and Blood-vessels.—It first quickens the action of the heart, by altering the balance of power. The blood-vessels all over the body are more easily dilated, so that the *vis à fronte* has not to be overcome, and blood is pumped into the tissues more easily than before. The period of rest which the heart requires is shortened, and its nutrition is interfered with both by pressure on the nutrient vessels and shortened time for recovery. After a time there is defective muscular power, whilst the quantity of work to be performed is really increased.

The Skin.—The superficial capillaries become dilated, a turgescence is produced which soon subsides, unless the dose is repeated; if it be a continuous repetition the turgescence becomes permanent. The skin alters in appearance, loses its smoothness and proper colour, becomes liable to disease, partly in consequence of the non-supply of lubricating material by the sebaceous follicles, and partly by interference with sweat-glands. Cold is felt more intensely than is the case when intoxicants are not habitually taken.

The Nervous System.—The symptoms which arise prove very conclusively that alcohol interferes with nerve-currents. At first it increases the discharge of energy, but at the same time producing a larger quantity of *débris* which remains more or less *in situ* in consequence of the semi-paralysed state of the vaso-motor system, and probably gives rise to the languor, headache, depression, and fatigue, which follow upon the excitement which alcohol has produced.

Kidney.—This is at first stimulated into increased action by the turbid vascular tissue, but the ultimate result is precisely the same in effect as arises in the liver; there is first enlargement, then a cirrhotic state. It is usually styled Bright's disease, and appears in several forms.

Muscular System.—Voluntary muscular power seems to be diminished, and the finer combined movements are less perfectly made. So says Professor de Chaumont in his splendid edition of Parkes's *Hygiene*, from which work I have extracted the major portion of these references to its physiological action on particular organs. Personal experience in my own case tells me very conclusively that, if I were to take three glasses of wine or beer to-day, I should feel tired, and not up to my work to-morrow; and this is the general experience of the abstainer.

How are the conditions which give rise to these morbid changes produced? My contention is, that there is arrest of the changes by which healthy functions are promoted. Those functions, and the ordinary faculties which belong to life, require that those changes be carried on regularly. Some are fond of calling them metabolism. The waste material which results from the performance of either function or faculty must be removed as fast as it is formed, if the body is to remain in a healthy state. If the change be interfered with, if the alcohol which is imbibed seize upon the nascent oxygen just at the moment when the latter is about to oxidise the resultant waste, that is left *in situ*, in a form which ultimately starts the degenerative stage, such as is found in the first stage of fatty degeneration, in cirrhosis, in atheroma, in emphysema, in Bright's disease, and all the class of maladies which are connected with the abuse of intoxicants. This is called nonsense by some of the supporters of the so-called temperate use of intoxicants, yet it is in accord with the views expressed by all the leading physiologists of the day; that which is nonsense in my writings must be as much nonsense in theirs; the grand physiological principles upon which these statements are based cannot be put out of sight by abuse.

(To be continued.)

REQUESTS AND DONATIONS.—The Hon. and Rev. William Henry Lyttleton, Rector of Hagley, has bequeathed such a sum not exceeding £1,300 as will produce £40 per annum, to be called "The Emily Lyttleton Fund," for providing a nurse in midwifery and non-infectious cases for the parish of Hagley.—Mr. George Bond, of Richmond-on-Thames, has bequeathed £1,000 to the Richmond Infirmary, in default of any of the children of his son attaining 21 years of age.—Sir Thomas Fowell Buxton, Bart., has given £200 to the Norfolk and Norwich Hospital.—The Corporation of the City of London have given £105, and the Goldsmiths' Company £50, to Queen Charlotte's Lying-in Hospital.

THE LUNACY LAW: ITS DEFECTS; AND A SCHEME OF REFORM.

By WILLIAM R. HUGGARD, M.A., M.D., M.R.C.P. LOND.

THE lunacy law has lately given rise to much discussion; and as fresh legislation on the subject may be expected, the points wherein the present law is defective deserve to be carefully examined.

The points to which attention will here be chiefly directed are, first, the means of ascertaining and determining insanity; and, secondly, the custody and general supervision of the insane, especially in private asylums. The outlines of a scheme of reform for giving the public greater protection from insanity on the one hand, and for giving the alleged lunatic more efficient safeguards on the other hand, will then be put forward.

Let us see what would be accomplished by a perfect law—by a law that should give complete expression to recognised principles; and let us put in contrast what is accomplished by our present law. Under a perfect law, every insane person—that is, every person who, through mental defect, is unable to conform to the requirements of society, and whose inability is not curable by punishment—would be under efficient supervision and control, though not necessarily in an asylum; and the interference with individual liberty would not be greater than absolutely necessary for the protection of society. A good law would also see that its provisions are not evaded either intentionally or unintentionally.

Now, what are the provisions of the present law, and how far do they give effect to the intention of the legislature?

The means for ascertaining insanity—that is, the means for bringing all cases of insanity within the knowledge of the authorities—are not at all complete. This incompleteness is, in one case, intentional. Thus a lunatic, provided he be not kept for profit, can be confined in the house of a relative or friend. Although this may be a defect, any remedy for it would probably be worse than the original evil; and so long as the lunatic is under proper control, probably no great harm is likely to arise. But if the lunatic be not under proper control, there is no adequate provision for dealing with the case; and this incompleteness is probably unintentional. If the case come to the knowledge of any constable, overseer, or relieving officer, such officer is bound immediately to take the lunatic, or cause him to be taken, before a justice of peace, whose duty it is then to take proper steps for placing him under control. The weak point is that it is nobody's duty that the case should come to the knowledge of any constable, overseer, or relieving officer. Our coroners' courts and our criminal courts testify only too plainly to the number of insane people not under proper control, and to the enormous preventable waste of human life through insanity in consequence—a waste of life that might readily be prevented by proper precautions; for warnings are rarely lacking beforehand which, to a trained mind, would indicate the event about to take place. It is not necessary to speak of the many cases that do not come directly before courts of law, but which cause a great deal of misery and anxiety, and do not fail, indirectly, to furnish their quota of crime.

The next point is the certifying of insanity—the procedure by which a lunatic is put under proper care and control. There may be said to be four methods of procedure, according as the lunatic is—1, a private patient (paid for by himself or by his friends); 2, a pauper patient (maintained wholly or in part out of the parish rates); 3, a Chancery patient (that is, found lunatic by inquisition); 4, a criminal lunatic. In every one of these cases, the procedure is more or less unsatisfactory.

These various methods need not occupy us in detail. The important point in which they all agree is, that not one of all the persons engaged in certifying insanity is required to have any acquaintance, practical or theoretical, with insanity. The medical men, the Master in Lunacy (at any rate, till he have acquired some experience), and the jury, may all, in the respective cases where their services are required, be absolutely incompetent to determine the precise nature of the individual case on the one hand, and may be absolutely ignorant of the nature of insanity generally on the other hand. Not one of them may be able to discriminate between the forms of mental defect that jeopardise the peace and security of society from those forms of mental defect that neither annoy others nor endanger the person himself. On the one hand, melancholia, though fraught with danger, may be regarded as a mild ailment, not requiring vigilant supervision; on the other hand, a harmless though absurd belief may

be looked on as a dangerous insanity. This result is not to be wondered at. A person can hardly fail to do badly what he does not know how to do well; and there is no reason for thinking that any of the persons necessarily concerned in any of the plans at present in use for determining insanity are capable of making a systematic and thoroughgoing examination into the various mental functions in relation to society. What Horace said of fools may with almost equal truth be said of the ignorant; when they avoid one extreme, they rush into the opposite. Medical men (and others), who do not happen to have any very clear idea of insanity, are apt either to diagnose it on very insufficient grounds, or to fail to see it in spite of the most palpable evidence. Any asylum-superintendent could furnish examples of both kinds.

As a result partly of the system of certification, and partly of various other causes, we have what may be termed a zig-zag borderland of insanity.

We come now to the custody and supervision of the insane. In regard to pauper lunatics, and private lunatics in public hospitals and asylums, custody and supervision probably require few, if any, improvements. The case of private patients in licensed houses, in single care, and under the care of the Court of Chancery, is somewhat different; and to these we will confine our attention. For one reason or another, the law in these three classes seems to me to be radically bad.

A word, first, as to the amount of supervision over the custody. The patients in licensed houses in the Metropolitan District are visited six times a year by the Commissioners in Lunacy; in the Provincial Districts, twice a year by the Commissioners, and six times by the County Visitors in Lunacy. The acting portion of the Board of Commissioners consists of six members (three medical men, generally with special training, and three barristers). The County Visitors in Lunacy (three or more justices, and one medical man) are elected annually; and, as a rule, probably have no acquaintance with insanity, except what they acquire during their term of office. Single patients must be visited every two weeks by a medical man who need not have any special knowledge of insanity; and the visits may, by sanction of the Commissioners, be made less frequently. The Commissioners also, as a rule, visit single patients twice a year, although they are not required by law to do so. Chancery patients in private asylums are visited twice a year by one or other of the Lord Chancellor's visitors in lunacy (two medical men with special training, and one barrister). The Commissioners in Lunacy, or the County Visitors in Lunacy, visit these cases in common with all others in the asylum, but have very little jurisdiction over them. Chancery patients not in asylums are visited four times a year by the Lord Chancellor's visitors.

I will now point out my objection to the protection the Court of Chancery affords the patient. The forms and procedure for an inquisition, and for superseding an inquisition, are so slow, so cumbrous, and so expensive, that there would naturally be reluctance and hesitation in attempting to undo what might perhaps be required again before it was undone. In other words, a patient, under the protection of the Court of Chancery, would hardly regain his liberty on recovery as soon as any other patient would. It is, however, true, that a Commission in Lunacy is rarely held, except in cases that are not likely to recover.

Single care is hardly sufficiently under supervision to be satisfactory.

Licensed houses have been violently decried from time to time; and, if for no other reason than that the public distrust has a strong tendency to drive the best men from the work, and to leave it in the hands of less suitable persons, I think some reform is needed. There is, however, another reason for reform; and that is, the ground on which the distrust is based.

The proprietor of a private asylum is entrusted with an anomalous combination of adverse functions. He is at once landlord and discretionary custodian, paid host and gaoler-at-will. By discretionary custodian and gaoler-at-will, I mean not a gaoler to whom a prisoner is committed for safe custody during a certain period, but a gaoler who is himself charged with the duty of determining how long the prisoner should stay.

This anomalous combination of duties is, as a rule, I believe, carried out in a way that does the highest credit to proprietors of private asylums. The system is, however, not the less objectionable on that account. That prejudice biases the decisions of the mind is a failing of our common humanity. The wisest and best of men have at times formed their opinions in the coloured light of emotion rather than in the dry light of intellect. Self-interest warps the judgment as powerfully as does any other emotion, and it is never well to unite duties so antagonistic that a more than average mental endowment is required, not for the honest, but for the impartial performance of them.

Though property is a matter of less importance than liberty, provision should certainly be made for the better administration of the property of insane persons. When a person is certified insane, his property is left without legal guardian; and, except when the property is very small, the process of appointing a legal custodian is so costly, as well as so slow, that probably a little friendly plunder and mismanagement would damage the estate less. When a lunatic is interdicted, why should not a responsible person be appointed to act for him in regard to his business or property?

The foregoing seem to be the main points wherein the present law of lunacy fails in carrying out its own principles. We will now see whether a scheme cannot be devised that shall give complete expression to acknowledged doctrines.

First, as to the notification of insanity. I think that, when a lunatic is not under proper control, any person to whose knowledge the circumstance may have come, should be required to notify the fact to the police, or other authority.

Secondly, as to certification. On this point I may quote from a leader in the *BRITISH MEDICAL JOURNAL* (December 6th, 1884). "The object in putting the insane under 'care and treatment' is twofold—the protection of the public, and the protection of the patient. That the protection of the public should depend on the chance inclination of private persons is hardly in accordance with any accepted theory of the duties of Government; and when the patient's own protection is the sole object, it would hardly be too much to expect that so onerous a duty as the interdiction of personal liberty should be undertaken by the State itself. On the one hand, the protection of the public, and, on the other hand, the abrogation of the liberty of the subject, belong properly to the functions of Government, and not to individual private opinion."

When a case of alleged insanity is brought under the notice of authority, in what way should the State determine the question? My proposal is simply this. All certification (except in cases of emergency) should be done by a competent Government official, at a fixed salary, a Medical Examiner in Lunacy. The procedure might be somewhat after this plan. The Medical Examiner, upon the written requisition of a medical man, of a magistrate, or of a relieving officer, stating the grounds of the application, should examine the alleged lunatic. Such an official should be empowered, if he think fit, to take evidence on oath, in so far as his inquiry is concerned.

How many of these officials would be required, and how would they be paid? These questions will now be considered.

There are somewhere between fourteen and fifteen thousand persons certified insane yearly; and of these, upwards of twelve thousand are paupers, and upwards of two thousand are private patients. Probably the money at present paid for certification exceeds £20,000; that is, calculating at the rate of one guinea for each pauper, and four guineas (two guineas for each certificate) in the case of each private patient. Under the suggested scheme, nearly the whole of this money could be readily turned into the State coffers, by causing a stamp duty of one guinea on each pauper certificate and two guineas on each private certificate. This would raise between £17,000 and £18,000, a sum more than sufficient to pay competent men. Sixteen men would probably be enough to do all the certification; and each might have a district formed with due regard to the populousness of the country on the one hand, and to its accessibility on the other.

The process of raising money to pay the Medical Examiners in Lunacy is, therefore, both simple and inexpensive. In the case of a private patient, the outlay to the friends would perhaps be less than at present; as the fee for a medical man's requisition would hardly be as much as the fee now generally charged for a lunacy certificate. In the case of a pauper patient, the relieving officer would make the requisition, so that the fee would simply go in stamp duty instead of direct to the medical man. Moreover, the plan suggested does not impose on any one a new tax or burden; it merely diverts the expenditure from a number of petty dribbles into a single channel. And the result would be, increased efficacy at less cost.

The next suggestion for reform concerns the custody of the insane. It has been shown that, in some respect or other, the law is unsatisfactory in regard to private patients in licensed houses, in single care, and under the protection of the Court of Chancery. Under the proposed scheme, these classes will all be included.

That the proprietor of a private asylum should have the discretionary custody of the insane is, as we have seen, utterly indefensible in principle. The remedy for this evil, however, is, not to abolish private asylums, but to do away with the anomalous combination of antagonistic functions—to separate the duties of paid host from the duties of discretionary custodian. The proprietor of an asylum should be entrusted simply with providing for the safety and

for the well-being of the patients; and the State should undertake, in a much more immediate manner, than at present, the discretion of continued detention. The immediate responsibility for a patient's detention should rest with a government official, or Medical Visitor in Lunacy. Almost all the duties, in fact, that now fall on the proprietor or superintendent of a private asylum, in virtue of his office as discretionary custodian, should be transferred to the Medical Visitor; such, for example, as the duty of reporting (or supervising the reporting) of the mental and bodily health of the patients at weekly, monthly, or quarterly intervals, according to the nature of the case; and it should be in his power, subject to the control of the Commissioners, to authorise a discharge, or a transfer, should he think fit.

Let us now see the number of medical visitors that would be required, and whence the money would come to pay them.

There are, roughly, about eight thousand private lunatics in England and Wales. Of these, more than half are in registered hospitals, or other public asylums, and need not, therefore, occupy us further. Of the remainder, upwards of three thousand are in private asylums, and less than a thousand are either lunatics by inquisition, under the immediate supervision of their committees, or patients in single care. It is with the custody of these four thousand patients (in private asylums, etc.) that we are concerned, and for whom it is suggested that Medical Visitors be appointed. To determine the number of Visitors, let us see the requirements. The proportion of recent cases of insanity (cases under one year's standing), to chronic cases, is about one in four. Out of four thousand cases, about one thousand would be recent cases. This proportion is, more or less, permanent; the admissions being nearly balanced by the discharges and deaths. Visits by the Medical Visitor should, for the first month, be made once a week; for the next three months, once a fortnight; for the remainder of the first year, once a month; and, in chronic cases, once every three months. Calculating as closely as I can, I think one Visitor would be able to supervise, in this manner, about two hundred patients. This number would, on the average, include about fifty recent cases. On this basis of calculation, twenty Medical Visitors of Private Asylums would be required in all. In forming districts, however, other considerations, besides the mere number of patients, would have to be borne in mind.

The payment of these officials stands on a somewhat different footing from the payment of the Medical Examiners in Lunacy. To pay the Medical Examiners, no fresh outlay is incurred, no new burden is imposed; the expenditure is merely turned into a different channel. The Medical Visitors, however, would be an altogether new creation. They have no counterpart under the present system; and the question is, on whom should the burden of payment be thrown, and how should the money be raised? Now I do not think it would be unfair to say that those who can afford to pay for the greater luxury, privacy, and comfort of a private asylum or of private care, should be required to pay also for increased security against unjust detention. It happens, too, as is shown by putting together the facts scattered throughout the Commissioners' Report for 1882, that private patients in private asylums are on the whole a wealthier, or at any rate a much better paying class, than are the private patients in public asylums. For example, I find by calculation from data afforded by the report in question, that the sum paid to proprietors of licensed houses alone for private patients under their care, is about £450,000; while the sum laid out on about the same number of private cases in public asylums does not probably exceed £200,000. The amount paid for single patients and for Chancery patients, with their Committees, is not included in these figures. If added, it would probably bring the sum spent on lunatics not in public asylums to over £500,000.

My proposal for raising the money is this. A charge should be made, not on the sum paid for the patients, but in proportion to it. A charge of 4 per cent. would raise £20,000. A larger sum than this would readily be raised in the following manner. The person who has charge of the patient's affairs, or who is responsible for his maintenance, should be required to make a quarterly declaration on stamped paper, stating the rate of payment for the patient, or anything else that might be thought proper; the stamp being at the rate of 10s. 6d. for each £50, that is, £4 4s. per cent. *per annum*.

In touching questions of this kind, one enters on delicate ground; for the pocket is the seat of the tenderest susceptibilities of our nature. The tax proposed, however, is not of a very burdensome nature. To some small extent, in the case of poor private patients, the charge would unquestionably be borne by the asylum-proprietor. With this exception, however, the tax would very properly fall on the patient or, on his friends; who, if they can afford to pay for the advantages a private asylum has over a public asylum, would not grudge at having to make a trifling additional payment to secure such supervision as

would put it beyond question that the patient will be detained only on public grounds, and not for private reasons.

With regard to the administration and supervision of the lunacy law, I think the present Board of Commissioners and the Lord Chancellor's Visitors in Lunacy, with the Masters in Lunacy, should be amalgamated, and should have their power increased. The number of Commissioners should, I think, certainly not be less than twelve. Under the present system, the object of a commission in lunacy is to protect the patient's property. Under the suggested scheme, ordinary certification would extend this protection to all lunatics with property, but in a less cumbersome and expensive manner; so that a commission for this purpose would be unnecessary. A commission, however, on any certified patient, if requested on the affidavit of a medical man, or of a magistrate, should, I think, be held by two or more Commissioners (one, at least, medical, and one legal). The primary object of such a commission would be to determine fitness for liberty.

One or two points more I would venture to suggest: namely, that the medical officers of asylums should form a branch of the Civil Service; and that some test of competency should be exacted from all who should enter the service. A brief recapitulation of some of the more important points may be allowed.

First, the means for ascertaining and certifying insanity are clumsy and imperfect. It cannot be said to be anybody's business to see that insane persons are under proper care and control. Then, when someone, apprehensive of danger, does move in the matter, what tribunal determines the question whether the person is to be deprived of his liberty or not? If the alleged lunatic be a man of property, the tribunal charged with determining this question, and vested with the power to give effect to its decision, is a private one, that is, it is not appointed or remunerated by public authority, but is selected and paid by the person who brings forward the allegation; and, as a rule, it has no special qualification for performing the official undertakes.

Secondly, the private asylum proprietor is entrusted with an anomalous union of antagonistic functions; he is, at the same time, paid host and discretionary custodian.

Thirdly, a simple, inexpensive, and comprehensive scheme of reform is put forward.

In conclusion, I have only to say that the subject is an extremely thorny one. That the present system admits of many improvements, is generally acknowledged; and yet scarcely a single improvement could be suggested that would not excite opposition from some quarter or other. To one thing we may resign ourselves. No matter how perfect our lunacy law may be, it will never give satisfaction so long as there are lunatics who think themselves sane; and this race does not appear to be in immediate danger of extinction.

HERR ARONSOHN has presented a report of experiments to the Physiological Society of Berlin, which he instituted in conjunction with Herr Sachs, and which had led to the discovery, he maintained, of a thermal centre in the cerebrum. Starting with the idea that, in consequence of a diabetic prick of the medulla oblongata, an increase of temperature would manifest itself in the liver, and finding by experiment no confirmation of this conjecture, Herr Aronsohn pushed his investigations for other thermal centres in the brain; and, in the course of these researches, came upon a spot where, on wounding it with a needle, a very considerable rise of temperature quickly set in. The speaker was not able to specify more exactly the spot at which it was necessary to make the prick in order to produce this effect. It was at all events certain that it was rather limited, and should be determined by more minute anatomical examinations of a number of brains of animals preserved in chromic acid after being operated on. Equally deep pricks, made at every other spot of the cerebrum, had either produced no effect on the temperature of the body, or had lowered it somewhat. In all the successful cases, the corpus striatum was pierced by the needle; in all the unsuccessful cases, the corpus striatum remained untouched. There was yet, however, no warrant from this circumstance to conclude where the exact site of the thermal centre was situated.

PRIZES ON SANITARY SUBJECTS.—Mr. Lomb, of Rochester, New York, has offered to the American Sanitary Association the sum of 2,000 dollars, to be distributed in the form of prizes for essays on the following subjects: Healthy Homes and Foods for the Working Classes; Sanitary Conditions and Necessities of School-houses and School Life; Disinfectants and Individual Prophylaxis against Infectious Diseases; Appliances and Means for Saving Life, and for Protection against Injurious Influences of Occupations on Health. The essays should be sent in before April 1st, 1885, addressed to the secretary, Dr. Irving A. Watson, of New Hampshire.

PORRO'S OPERATION: A SUPPLEMENT. By CLEMENT GODSON, M.D., Consulting Physician to the City of London Lying-in published in the JOURNAL of January 26th, 1884. They contain those cases which were omitted, and those which have since 56.57 per cent., a little higher than that recorded in the original table.

TABLE I.—*True Porro's Operations.*

No.	Date.	Operator and Locality.	Hospital or Private House.	Age.	Number of previous labours.	Cause of difficulty.	Available pelvic space.	Height of Woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to woman.	Result to child.	Cause of death in woman.
138	1880. March	Dr. Laroyenne, Lyons, France	Hos.	30	1	Occlusion of vagina from cicatrices	Admitting only a finger. $1\frac{1}{2}$ in.	—	A few days before term	Favourable	Died on 3rd day	Living	Peritonitis
139	Nov. 1883.	Dr. Fochier, Lyons, France	"	38	Primipara	Rickets	C.V. $2\frac{1}{2}$ in. bischiatic $1\frac{1}{2}$ in.	Very short	2 days	"	"	Stillborn	Septic peritonitis
140	Oct. 11	Dr. H. Fehling, Stuttgart, Germany	"	33	7	Failure to turn in arm presentation because of contracted pelvis from osteomalacia	—	—	14 hours	—	Recovery	Living	—
141	1884. Jan. 9	Professor J. Späth, Vienna, Austria	"	38	8	Osteomalacia	—	—	15 hours after waters broke	Very weak & emaciated	"	"	—
142	Jan. 25	Dr. H. Fehling, Stuttgart, Germany	"	32	7	Rickets	$1\frac{1}{2}$ in.	4ft. 7in.	12 hours	Favourable	"	"	—
143	Jan. 30	Professor Simpson, Edinburgh, Scotland	"	—	1	Fibroid tumour of lower segment of uterus filling pelvis	$1\frac{1}{2}$ in.	Average	18 hours	Very unfavourable	Died	Stillborn	Peritonitis
144	Jan. 30	Professor Tibone, Turin, Italy	"	18	Primipara.	Rickets	$1\frac{1}{2}$ in.	4ft. 1in.	38 hours	Favourable	Recovery	Living	—
145	Feb. 14	Dr. Herman, London, England	"	29	"	"	$1\frac{1}{2}$ in.	Short.	48 hours	Unfavourable	Died on 10th day	"	Tubular nephritis, oedema of lungs. Slight local peritonitis
146	April 10	Professor Léon Dumas, Paris, France	"	30	Primipara	Rickets	C.V. $2\frac{1}{2}$ in.	3ft. 10in.	4 hours	Favourable	Died on 6th day	"	Peritonitis
147	May 3	Dr. Säger, Leipzig, Germany	"	40	"	Myomata	—	—	Not in labor	Febrile	Died on 3rd day	Putrid	Septicæmia
148	June 28	Professor J. Späth, Vienna, Austria	"	31	5	Osteomalacia, spondylolisthesis	—	—	3 days	Unfavourable	Died on 6th day	Living	Peritonitis
149	Sep. 11	Dr. Fancourt Barnes, London, England	"	28	Primipara	Dermoid cystic tumour in pelvis	$1\frac{1}{2}$ in.	Medium	48 hours, 40 hours after waters broke	"	Died on 5th day	"	Septicæmia
150	Oct. 23	Dr. Vincenzo Lesi, Imola, Italy	"	28	"	Rickets	C.V. $2\frac{1}{2}$ in.	4ft 3in.	10hrs. waters broke 8 hrs.	Favourable	Recovery	"	—
151	Nov. 18	Professor Fritsch, Breslau, Germany	"	27	"	"	C.V. $2\frac{1}{2}$ in.	4 ft. 1 in.	Not commenced	Anæmic	Recovery	Living	—
152	Dec. 2	Dr. M. Handfield-Jones, London, England	P. ho.	36	"	Subperitoneal fibroid impacted in pelvis	About 2in.	About 4ft. 10in.	27 hours	Unfavourable	Died on 3rd day.	Stillborn	Peritonitis

TABLE II.—*Utero-ovarian Amputations during*

No.	Date.	Operator and Locality.	Hospital or Private House.	Age.	Number of previous labours.	Cause of difficulty.	Space between tumour and symphysis pubis	Advanced in pregnancy.	Condition of woman at time of operation.	Result to woman.	Cause of death in woman.
6	1877. Jan. 7	Dr. Robert Barnes, London	P. ho.	—	Primipara	Fibro-myomata of uterus	Hardly any	2 months	Greatly prostrated. Suffering from peritonitis	Died in 30 hours	Shock and peritonitis
7	1883. Jan. 13	Professor Schröder, Berlin	Hosp.	40	"	"	"	3 months	Favourable	Recovery	—
8	Sep. 15	Dr. T. Savage, Birmingham	"	22	1	Occlusion of vagina from sloughing after previous labour	—	6 months	"	"	—
9	1884. Jan. 17	Dr. George Fortescue, Sydney New South Wales	"	21	Primipara	Ovarian cystoma	Normal	5 months	"	"	—
10	June 23	Professor Schröder, Berlin	"	34	"	Large fibro-myoma of uterus	Hardly any	$2\frac{1}{2}$ months	"	"	—

Hospital ; Assistant Physician-Accoucheur to St. Bartholomew's Hospital. The subjoined tables are contributed as an Appendix to those occurred. The true Porro's operations now amount to 152 ; of these there are 66 recoveries and 86 deaths, which gives a mortality of

TABLE I.—True Porro's Operations (continued).

Treatment of pedicle.	Dressing ordinary or Listerian.	Duration of operation.	Special Notes.	References.
Fixed in lower angle of wound surrounded by elastic ligature	Listerian	45 mins	—	Discussion of Society of Medical Societies in Lyons.
Kept out. Fixed in lower angle of wound	"	36 mins	Uterus opened <i>in situ</i>	Communication direct from operator.
Extraperitoneal; transixed by long pin surrounded by elastic ligature	"	—	—	Centralblatt für Gynäkologie, 1884, No. 2.
Kept out with Billroth's écraseur and two long needles	Listerian. No spray	40 mins	Chain fell from pedicle on 13th day	Archiv. für Gynäkologie, 23 Band, Heft 2, 1884.
Transixed by long pins surrounded by elastic ligature	Iodoform dressing. No spray	—	—	Communication direct from operator. Not yet published.
Kept out with Lawson Tait's clamp	" "	—	The bulging tumour caused tension on the pedicle and prevented drainage. Removal of tumour impossible. Müller's modification	Edinburgh Medical Journal, July, 1884. Communication from Dr. Barbour.
Transixed with Kaltenbach's needle and elastic ligature applied through centre of pedicle	Listerian	1 hour	Uterus opened <i>in situ</i> . Woman left hospital well, March 15	Communication direct from operator. Annali di Ostetricia, No. 2 and 3, 1884.
Kept out with Lawson Tait's clamp	Listerian with spray	40 mins	Uterus opened <i>in situ</i>	Not yet published. Communicated direct from operator.
Kept out with Cintrat's constrictor and two long pins	Listerian with spray	1½ hours	Uterus opened <i>in situ</i>	Annales de Gynécologie, October, 1884.
Fixed in lower angle of abdominal wound by Hegar's method	Listerian	—	Patient was 4 weeks over term when operation was undertaken. Uterine walls contained six myomata	Not yet published. Communication direct from operator.
Kept out with écraseur chain	Listerian without spray. No drainage	1 hour	Uterus opened <i>in situ</i>	Information from Dr. Ehrendorfer. Not yet published.
Kept out with Kœberlé's serre-nœud and two long pins	Listerian without spray	30 mins	Uterus opened <i>in situ</i> . Placenta removed before serre-nœud was applied	Communication direct from operator.
Ligatured and stitched to abdominal wound, ligature of both broad ligaments below ovaries	Listerian	35 mins	Pedicle did not unite very satisfactorily at first and gave considerable trouble	Communication direct from operator.
Ligatured and dropped in after application of iodoform	"	—	Müller's modification. Patient left Hospital well on 15th day	Centralblatt für Gynäkologie, No. 1, 1885.—Heilbrun.
Fixed in lower angle of wound with Kœberlé's serre-nœud and two long pins	Listerian with spray	45 mins	Tumour freed from adhesions and removed with uterus. Attempts to raise tumour per vaginam failed. Craniotomy also failed	Not yet published. Information direct from operator.

Pregnancy, but before the Fœtus was viable.

Uterus opened?	Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Weight of tumour.	Special notes.	References.
No	Ligatured with strong whip-cord and dropped in		—	—	Uterus was compressed between two fibroid tumours, the larger locked in the pelvis, the smaller projecting over the symphysis pubis	St. George's Hospital Reports, vol. viii, 1874-76, page 91. Communication from operator.
No	Dropped in		—	—	Uterus with two interstitial and one subperitoneal fibroids removed, being amputated at the internal os uteri	Communication direct from operator, 13th July, 1884.
No	Kept out with clamp	Ordinary	1 hour	—		Birmingham Medical Review, Nov., 1883. Communication direct from operator.
Yes	Kept out with Spencer Wells's clamp	Listerian dressing; no spray. Drainage tube through abdominal wall	1½ hours	—	Uterus was removed because it was wounded during ovariectomy. The uterus was punctured believing it to be a second ovarian cystoma	The Australian Medical Gazette, Sydney, May 15th, 1884.
No	Dropped in		—	—	The tumour, measuring 24 kilomètres, was situated beneath the pregnant uterus, and was removed together with it, the amputation being at the internal os	Communication direct from operator, 13th July, 1884.

TABLE III.—Operations for Removal of Fœtus from Abdominal Cavity by

No.	Date.	Operator and Locality.	Hospital or Private house	Age	Previous confinements.	Time of operation after rupture.	Condition of woman.	Result to woman.	Result to child.
7	1883. Dec. 18	Dr. Luigi Violani, Forlì, Italy	Private house	27	3	12 hours	In state of collapse	Died in 48 hours.	Dead before operation.

TABLE IV.—Cases omitted from

No.	Date.	Operator and Locality.	Hospital or Private house.	Age.	Number of previous labours.	Cause of Difficulty.	Available pelvic space.	Height of woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to Woman.	Result to Child.	Cause of death in Woman.
1	1882. Oct. 2	Dr. M. Säger, Leipzig, Ger- many	Hosp.	21	2	Retention of a macerated fœtus in the left horn of a bicornered uterus	Normal	Ordinary	Had labour pains for 12 hours 9 weeks before operation	Fair	Recovery	Stillborn macerated	—

A CASE OF PORRO'S OPERATION.

Read before the West Kent District of the South-Eastern Branch.

By FANCOURT BARNES, M.D.,

Obstetric Physician to the Great Northern Hospital; Physician to the British Lying-in Hospital and the Chelsea Hospital for Women.

THE case which I am about to relate is, as far as I know, the sixth in which Porro's operation has been resorted to in this country. The patient, Mrs. S., aged 28, primipara, was sent into the British Lying-in Hospital, on September 10th, 1884, by Dr. Pearce, on account of a pelvic tumour obstructing labour. I was sent for to the hospital at 9.30 P.M., and, on making a vaginal examination, found the pelvis nearly completely occupied by a hard semi-solid tumour, lying behind the posterior wall of the vagina, and fixed to the sacrum. The os uteri was only dilated to the size of a five-shilling piece, although the patient had been forty-eight hours in labour, and said that the liquor amnii had escaped soon after the commencement of labour. Finding that it would be impossible, owing to the narrow space between the tumour and pubes, to deliver by craniotomy without the certainty of rupturing the tumour, I endeavoured to push the tumour up out of the pelvis. This, however, I was unable to do, it being firmly fixed to the concavity of the sacrum. It being now clear that one or other of the Cæsarean operations would be necessary, I sent for my colleagues, Drs. Phillips and Handfield-Jones, and my father, Dr. R. Barnes. On their arrival, the patient was examined by them, and further unsuccessful attempts made to push the tumour up out of the pelvis. After consultation, it was decided to deliver by abdominal section, in the interest of the mother as well as of the child. The patient having been anaesthetised by Dr. Phillips, I proceeded, at 12.30 A.M., to the operation. An incision from one inch below the umbilicus to an inch above the pubes was made through the abdominal wall. I then made an incision about four inches in length perpendicularly, down the anterior wall of the uterus. The right shoulder of the child presented at the uterine opening. I therefore passed my hand into the uterus, seized a foot, and delivered a live male child, weighing 7 lbs. Having separated the child from the cord, I removed the placenta. The hemorrhage from the incised uterine walls was controlled by Sydney Jones's ovariectomy clamp-forceps. The uterus, which was now empty and contracted, was drawn forwards out of the abdomen. A Kœberlé's *serre-nœud* was then applied round the cervix, underneath the ovaries. The *serre-nœud* was tightened, and the uterus, together with the ovaries, amputated just above the *serre-nœud*. The pedicle formed by the cervix was transfixed by two straight pins, and fixed outside the abdomen at the lower end of the incision. Some sponges, on sticks, were passed down into the pelvis, and returned unstained, showing that no fluid or blood had escaped into the peritoneum. The abdominal incision was united by silver-sutures. The wound was covered over with cotton-wool; a piece of carbolised lint being placed over the stump. With the exception of the spray, the operation was

performed under antiseptic precautions. The operation occupied forty minutes. The child survived.

During the night, the patient slept at intervals, and was free from pain. She received four doses of thirty minims of tincture of opium during the night.

On September 11th, at 10 A.M., nine ounces of urine was drawn off. Her pulse was 84, temperature 98.2° Fahr. The *serre-nœud* was tightened, and some perchloride of iron was applied to some oozing vessels in the stump. I prescribed compound spirit of chloroform, fluid extract of ergot, and tincture of digitalis, to be taken every four hours. Between twelve and one o'clock, she vomited about two ounces of yellow mucus. She had iced champagne at intervals of twenty minutes during the afternoon, to allay the vomiting. The urine was drawn at 8.30 P.M. At 10 P.M., the pulse was 104; temperature 98.2°.

At 10 A.M. on September 12th, the pulse was 96, and the temperature 99.4°. Eighteen ounces of urine had been drawn off during the night. The abdominal wound, which looked healthy, and had united, was dressed under the carbolic spray. The pedicle was healthy and odourless. Tongue moist and clean. The vomiting had ceased. Nine ounces of urine were drawn off. At 3.30 P.M., the *serre-nœud* was tightened, and nine ounces of urine were drawn off. She was taking beef-tea, gruel, milk and soda-water, alternately, in doses of a tablespoonful. At 10.30 P.M., the tongue was clean and moist; pulse 96, temperature 99.8°. The respirations had gone up to 21. She looked well, and said she felt comfortable.

September 13th, 10 A.M. The pulse was 120; respirations 21; temperature 102.8°. She had had a rigor at 6.45 A.M. The urine was drawn three times during the night; eight ounces each time. The vagina was syringed with carbolic solution, and some offensive sanious fluid washed out. The stump looked healthy. She was ordered quinine in ten-grain doses, with tincture of opium. At 3.30 in the afternoon, six ounces of urine were drawn off. Nourishment was well taken, but the abdomen had become distended and tympanitic. Pulse 120, respirations 20. In the evening, at 10 P.M., the pulse was 122; temperature 100.4°; respiration 24. During the day, three enemata of soap and water, with turpentine and oil, were administered, which gave vent to large quantities of flatus, and relieved the abdominal distension. The *serre-nœud* was tightened, and the pedicle found healthy and free from smell. The vagina was syringed with carbolic lotion, which returned clear.

September 14th, 10 A.M. The pulse was 120; respiration 28; temperature 101°. Nine ounces of urine had been drawn off at 4 P.M. She had hiccough. She was perspiring freely. She had passed some urine into the bed. At 3.30 in the afternoon, the pulse was 140. Diarrhœa had set in, with clay-coloured stools. In the evening, she became delirious, and tried to get out of bed. During the night, she rapidly grew worse, and died at 4.45 A.M. on September 15th.

The *post mortem* examination was made by Dr. R. Burnet, twelve hours after death. The body was that of a large, well developed, and well nourished woman, aged 28. A complete examination was forbidden; hence only the pelvis and abdominal cavity, through the incision, could be examined. The whole of the incision had united, except the lower