How does Article 387 support those other moral principles which underlie our actions? Is it in the interest of justice and truth that the only evidence on material facts which can enable the Court to arrive at the truth should be technically excluded? To give a very modest piece to the doctor is a way of getting rid of all the essential evidence in a cause, and the doctor's gambit is already a very favourite opening in the swindler's game. Is it in the interests of humanity and purity that a woman to whom a loathsome disease has been communicated by a dissolute husband should find herself chained to him for life, and unable to gain the ordinary means of redress because the only witness who can prove this material medical fact has scruples of conscience, or is technically excluded from testifying?

When moral principles urge us in different directions, order pointing one way, justice or humanity in another, our conscience alone must shape our course. The stars in their courses do not move in rigid circles, but, by the law of universal gravitation, the forms of their ellipses are moulded by every orb in their system; and although in questions of conflicting duty we have no Newtonian law by which we can solve our difficulties, yet our path must not be influenced wholly by one principle nor by another, but it must lie in the resultant of these forces.

Twice in the last few weeks I have read in the newspapers of cases in which medical men found themselves face to face with conflicting duties of this kind. A medical man at Nottingham refused to give evidence in a court of justice because he had conscientious scruples about breaking the academical promise to avoid gossip which he had made to his Alma Mater. It is needless to say that no society, whether it be a university or a suicide club, is permitted to make private rules for its members that can override the law of the land. Lord Mansfield puts it very clearly:²⁷

If a surgeon was voluntarily to reveal secrets to be sure he would be guilty of a breach of honour, but to give that information in a court of justice which by the law of the land he is bound to do, will never be imputed to him as any indiscretion whatever.

Here we have a medical man in the presence of two conflicting duties, the desire to be silent and the desire to co-operate with justice urging him in opposite directions.

The other case was that of a surgeon appointed by the Court of Quarter Sessions to examine police constables applying for superannuation. He also had scruples about giving that medical information which it was his public duty to give, and which was necessary to enable the magistrates to do their duty. It was a conflict between the desire to be silent and the desire to perform the duty of his official appointment.

It is when we are assailed by conscientious scruples of this kind that the difficulty of finding the resultant of the forces that impel us is likely to be felt. Any advice of mine would be of little value, but let me rather give you that of the late Master of Balliol, who was not only a great moralist, but pre-eminently a man of the world:

In daily life cases often occur in which we must do as other men do, and act upon a general understanding, even though unable to reconcile a particular practice to the letter of truthfulness or even to our individual conscience. It is hard in such cases to lay down a definite rule, but in general we should be suspicious of any conscientious scruples in which other good men do not share. We shall do right to make a large allowance for the perplexities and entanglements of human things; we shall observe that persons of strong Mind and Will brush away our scruples: the man whom we emphatically call "honest," "able," "upright," who is a religious as well as a sensible man, seems to have no room for them..... Strange as it may appear, it is nevertheless true, that scruples about lesser matters almost always involve some dereliction of duty in greater and more obvious ones. No one can fix his mind intently on a trifling scruple, or become absorbed in an eccentric fancy, without finding the great principles of truth and justice insensibly depart from him. He has been looking through a microscope at life, and cannot take in its general scope; the moral proportions of things are lost to him.²⁸

Let us endeavour to preserve the moral proportions of things. Our own law may be uncertain and difficult to understand, while foreign codes are simple and have an attractive semblance of being in the interest of public order and higher morality. But I would sound a note of warning before we drift into the doctrine of absolute secrecy, and would ask you to consider carefully the safeguards we ought to adopt to prevent ourselves from being made the passive agents of injustice and wrong.

NOTES AND REFERENCES.

¹ Cicero: Pro Muræna § 11: De Oratore, i. i. c. 41; Pro Q. Ros. § 8. ² Voet: In Pand., lib. 22, t. 5. ³ Sozomen: Hist. Ecc., vol. vii. t. 16. ⁴ See Rulings of Criminal Chamber, May 24th, 1862. ⁵ August 18th, 1882, December 19th, 1885. ⁶ Gazette des Tribunaux, 10th May, 1899; La Semaine Médicale,

May 17th, 1899. ⁷ Greenough v. Gaskell, 1 M and K, 103. ⁸ Meibomius: Hippocratis Magni Orkos sive Jusjurandum, 1643. ⁹ Aegrorum arcana visa audita intellecta eliminat nemo. ¹⁰ Articles 1382 and 1383. ¹¹ Hémar: Le Secret Médical (Ann. Hyg. xxxi, 187). ¹² Dalloz Repertoire de Législation. ¹³ Crim. Chamb., July 23rd, 1830. ¹⁴ Grenoble, August 23rd, 1828. ¹⁵ Legrand des Saulles: Méd. Lég., p. 1243. ¹⁶ May 18th, 1899. ¹⁷ Al. Legroux: Arch. Gén. de Méd., August, 1878. ¹⁸ Brouardel: Le Secret Médical, p. 47. ¹⁹ Das Berufsgeheimnis des Arztes, von Dr. S. Placzek Leipzig, 1893. ²⁰ Medici qui thalamos et tecta aliena subeunt multa tegere debent etiam laesi, quamvis sit difficile tacere cum doleas. ²¹ A. B. v. C. D. 14, Dunlop, 2nd Series, 177. ²² Austria 498, Belgium 458, Germany 300, 328, Holland 272, Italy 380, Portugal 290, Russia 872, Spain 378, Switzerland (Freiburg) 110, Turkey 215. ²³ Das Berufsgeheimnis des Arztes, von Dr. S. Placzek, 1893. ²⁴ Code Pénal Belgc. J. G. Nipels, Bruxelles, 1878. ²⁵ Sir H. Hawkins, Kitson v. Playfair, Times, March 26th, 1896. ²⁶ Bentham, Morals and Legislation, p. 172. ²⁷ Lord Mansfield, Duchess of Kingston's case, 20 S. T., p. 573. ²⁸ Jowett: Paul. Ep. II. 394, Casulistry.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THIRTY-FIVE YEARS' RETROSPECT IN THE PROFESSION,

INCLUDING SOME EXPERIENCES, CHIEFLY SURGICAL.

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To those of us who from advancing years are unfortunately able to do so, it is interesting to recall some of the conditions under which surgery was practised in the early Sixties, when I entered the profession.

THE DAY OF "LAUDABLE PUS."

In those not very remote days nearly all wounds, including those made by the surgeon, healed with suppuration; indeed terms were in vogue such as "healthy" and "laudable" pus, expressing in a measure the surgeon's approval, and although "healing by first intention" was spoken of, nothing was known or taught by which to attain this desirable end. It was known that wounds of the face commonly healed in this manner, and to the free blood supply of this region was credited such result, which was true in part. What I wish to lay stress upon, is that nothing was taught by which on the surgeon's part the primary healing of wounds could be assured. Surgeons used to wash their hands after an operation, but usually not before, unless they were obviously dirty, and the assistants never troubled to carry out such a process preceding operations. If a wound healed by primary union, it was shown as something out of the common; indeed to my recollection it seemed a sort of freak of Nature. No self-retaining pressure forceps had been invented, so all vessels had to be tied at once in a wound, each being held by one pair of forceps whilst someone else tied it; the delay and inconvenience in a large operation were considerable. The only dressings available were lint, cotton wool, and plaster; the modern packages of well-made dressings, pads, sheets of tissue gauze, etc., had not been thought of.

All ligatures were left long, and to the silks proceeding from the chief arteries one or more knots were tied that they might be recognised; the dozen or so of strands hanging from the stump after operation formed a set of setons which poured forth pus until they separated and came away on gentle traction two and three weeks afterwards. To cut off a ligature close in a wound, and close it in, was quite outside our experience; indeed, we were taught that such would inevitably form an abscess, and work its way out. All wounds were dressed wet, usually with strips of lint wrung out of water, and then covered with oiled silk. Drainage as such, deliberately carried out, was not practised. No systematic washing or bathing of patients admitted to hospital took place; I am not prepared to state that an occasional "cat-lick" sort of a wash was not carried out now and then by some energetic nurse, but this was not the rule, and I well remember when I was quite an advanced student going round with Dr.—now Sir Samuel—Wilks, who clinically descanted upon the curious fact that the patients were never washed, demonstrating the fact to us from a peculiarly nasty pair of dirty legs.

ADMINISTRATION OF ANÆSTHETICS.

Nothing as to this was taught in my time, nor indeed for many years after. The student picked up what he

could from a few pages in the books on surgery aided by his own observation. I myself, being elected house-surgeon to Guy's, the first man of my year, was suddenly called upon at 21 to administer chloroform to most of the cases of operation. That I had not a fatal case was more the result of good luck than good management, for it was many years before I began to get even moderate confidence in myself. There were no teachers of anaesthetics in those days. Chloroform was the only anaesthetic I saw administered at Guy's in my student days. The use of ether, A.C.E., and nitrous oxide gas was acquired subsequently by me. I may here remark that in my experience no anaesthetic is absolutely safe; certainly no single one is best adapted for all cases; here and there we meet a subject who cannot be got under with safety with ether or with chloroform, as the case may be.

A PRECEPT OF HILTON.

[After considering in detail the methods of administration to be used in the case of the different anaesthetics and the dangers to be guarded against, Mr. Buck proceeded:]

When at Guy's I had the great advantage of being dresser to the late John Hilton, who was one of the most thorough men I have known. His devotion to surgery was most intense, almost reverential; he considered everything secondary to the study of his profession for a student; he always wanted to know why such and such was done; and had a large following of men on going round the wards. It was not unusual for some students to wear smart gloves, and I remember once, Hilton was examining a man *per rectum*—a case of fistula or malignant disease may be, and withdrawing his finger, he with studied courtesy invited these elegantly gloved dandies to examine the case. As they one by one withdrew to the rear of the crowd, he said, "Gentlemen, never miss any opportunity of examining the rectum you get; if you do, you will surely live to regret it." These words impressed me greatly and I always acted up to them. Shortly after I was newly qualified they stood me in good stead, while acting as *locum tenens* I was sent for to an old gentleman very irascible and impatient, whose case I could not readily diagnose. He complained of constant tenesmus and pain in defaecation, which had come on suddenly and recently. Nothing was to be seen externally—such as piles, fissures, etc. Suddenly Hilton's words crossed my mind, "Never miss an opportunity," etc. I passed my finger, and found about 2 inches up a large fish bone jammed transversely across the gut, the removal of which cured the case.

In the course of my life I have frequently been surprised to find how examination *per rectum* has been neglected by surgeons who have called me in to cases of intestinal obstruction, etc., and I have not infrequently earned a little cheap "kudos" by discovering some simple thing by this means, which anyone might have done had he only taken the trouble to do so; at the same time, I think the examination *per rectum* requires at least as much education as that *per vaginam*.

OPERATIONS ON THE RECTUM.

I always require the rectum empty; this can only be attained after three or four days' preparation by aperients and enemata. For piles, fissure, and fistula I commence by widely stretching the sphincter ani with my two thumbs, until all power is gone from the muscle and several fingers can be inserted without any feeling of constriction. Simple fissure will be cured by such rupture of the sphincter ani. Piles I always crush with an Allingham's or Pollock's clamp, and cut them off flush with the jaws of the instrument by means of scissors, rasping down the stumps on to the clamp face; the piles should be retained for at least two minutes under the strongest pressure. I never use ligature or cautery, and disapprove of both as leaving sloughs to separate, and I consider application of nitric acid and injection of carbolic acid as only temporising, making not such good cure with equal risk and pain. After rectal operations I keep the bowels loose, beginning two days after. Operations for piles have been among the most successful in my experience; rarely have I had to operate more than once, and then only because I was cautious and did not complete at my first sitting. This non-recurrence has always seemed inexplicable to me, seeing that the original causes of production—for example, constipation, free living, sedentary occupations,

etc.—commonly continue. As the operation I advise for piles is tolerably thorough, the hæmorrhage is often severe, and is best arrested by picking out any spouting artery with pressure forceps and ligaturing it; but this is rarely necessary, the complete dilatation of the sphincter ani allowing the parts to be extruded. Plugging the rectum is futile, and only provokes tenesmus on return of consciousness; the rectum will not tolerate anything in it, and plugs only aggravate the hæmorrhage they are intended to arrest.

[Mr. Buck here related two illustrative cases.]

RUPTURED PERINEUM.

The operation for ruptured perineum is one which has given me great satisfaction. In this I follow the instruction of Lawson Tait closely. Not a particle of tissue is removed; I use silkworm gut for sutures, tied in the ordinary way (no shot and coil sutures or quill sutures). I leave the sutures in about three weeks, and I keep the bowels open and loose daily, beginning the second day after operation, and syringe out both the vagina and rectum with at least a pint of warm water every day. My object is never to let a solid motion pass the rectum and to keep that gut empty. The patient is allowed to pass urine *sponte sua* from the first—that means "no catheter." The new perineum is thick and stands the strain of subsequent labour well.

In recent lacerations of the perineum I do not advocate insertion of sutures, my plan being to keep the legs together for a fortnight to three weeks, to syringe the vagina daily, to keep the bowels loose and rectum empty. With this treatment I have repeatedly had lacerations of all degrees of severity up to and including those through the sphincter ani, healed soundly at the end of the puerperal month.

THREE MASTERS.

The name of Lawson Tait reminds me how greatly I personally feel indebted to three men, none of whom I ever saw, but whose principles have had great weight in my practice during many years past—I allude to Lord Lister, Tait, and the late Mr. Gamgee, of Birmingham. I have watched Listerism from the beginning, through its initial stage of antiseptic putty and sheet lead, the rise and fall of the spray, to the present day, and what I have admired as to Lord Lister has been the readiness he has changed his detail as any method has proved non-essential or superseded by a better. This absence of bigotry is very unusual, and only seen in men of truly great intellect.

Tait's fearlessness has, I am sure, had great influence on the surgery of the abdomen, greater than is generally admitted in the profession. He was not a popular man, but at the time he was at his best I doubt if he had an equal; and I am sure many have followed his lead and will not admit having done so. It is not, of course, fair to contrast what is done to-day with work of ten years ago, for it is partly the result of that bygone experience that the success of to-day occurs. The aphorism attributed to Tait, "that he would as readily put his hand into the peritoneum as into his trousers pocket," is almost literally true, and has, I believe, encouraged many a man to undertake what he would not have otherwise ventured to do.

From Gamgee I learned the invaluable lesson of dry absorbent dressing, which is merely another name for the most perfect drainage by means of capillary action. I adopted the system many years ago with most successful results in all my cases. Now, when speaking of the subject of drainage in such eulogistic terms when carried out as above, I must disclaim any leaning to the ordinary rubber drainage tube, which performs its duty in a very unsatisfactory manner, and too often degenerates into a seton. I use drainage tubes as little as possible, preferring, whenever I can, a gauze drain or strands of silkworm gut or horsehair.

ABDOMINAL SURGERY.

Abdominal surgery was non-existent five-and-thirty years ago; the very term is of later date. Nevertheless, at that time a few surgeons were attempting ovariectomy, generally with disastrous results.

It used to be considered almost essential for diagnosis that an ovarian tumour should first be tapped, and generally several times, and only when the cyst was found to refill again and again was ovarioomy attempted. Apart from the injurious influence of repeated tapplings,

which caused adhesions, the long delay before operation was most adverse in the same manner: which delay had its origin in the universal timidity surgeons entertained with regard to tampering with the peritoneum. For this reason the smallest incision possible, from 2 to 4 inches, was in vogue in ovariectomy, necessitating greater violence in extraction, and precluding examination of the abdominal contents. Extraperitoneal treatment of the pedicle by clamp retarded year after year all progress in this branch of surgery. Nothing was known as to the method of dealing with adhesions, which it was the custom to strip off the surface of the tumour before evacuating the contents, so conducing to hæmorrhage. It was not known how many layers of the abdominal wall to suture, and in fact it was quite haphazard as to this. Not that surgeons were careless in those days, for according to their lights they took as much pains as men do at the present day. Thus the temperature of the operating room was scrupulously regulated, being made very warm with steam kettles going, and the patient was kept in strict privacy before, during, and after the operation; those attending it were limited in number, and care was taken that no one present had been in attendance on any contagious or infectious disorder. We now know that many of these precautions are unnecessary, some of our best results being obtained in the general operating theatre and wards of our hospitals.

For myself, I can say that I have become imbued with certain broad principles in the surgery of the abdomen, chiefly through the writing and practice of others. In the first place the incisions should be sufficiently large; of course, no one would make them unnecessarily so, but if the purpose require there is no reason why the incision should not extend from pubes to ensiform cartilage, and for the same reason the abdominal walls may be cut through, transversely as well as longitudinally. I have several patients, alive and in good health, in whom this has been done extensively. I always observe the greatest care not to disturb the relation of the peritoneum to the inner surface of the abdominal wall, so that the sutures in closing the wound may traverse all the layers, including the peritoneum, the two surfaces of which are thus brought into apposition. In the event of distended intestines being extruded it may be impossible to return them before sewing up; in this case it is better to make a clean longitudinal cut in the most distended portion, and catch the contents in a bowl, protecting the other bowels from contamination by means of aseptic towels, wrung out of hot 1 per cent. lysol solution. When by this means the distension has sufficiently subsided, the incision is carefully sewn up by means of a Lembert suture and returned into the cavity of the abdomen. This plan is much better than trying to force guts back into an almost impossible space. Of course, the incision of the bowel must be most carefully sewn with a fine ordinary sewing needle and finest silk. Irrigation of the cavity of the peritoneum is much adopted by me, but in one way only—namely, by pouring hot water into a large glass funnel, having adapted to its lower end from 2 to 3 feet of rubber tubing fitted with a Keith's glass drainage tube on its extremity; the Keith's tube is passed to the back of the abdominal cavity and into the depths of the pelvis and loins; by elevating the funnel the stream wells up from the depths and floats extraneous matter, as lymph, pus, and blood, to the surface; this is continued until the water flows off quite clean. I often use many gallons—say seven or eight. The water is used as hot (not warm) as is comfortable to the hand, and acts as an immediate stimulant. No sponging out or attempts to remove the superfluous water are made, and practically the peritoneal cavity is left full of hot water and sewn up. The hot water arrests hæmorrhage from torn adhesions, prevents adhesions taking place between abraded surfaces of peritoneum or to the ends of cut pedicles, obviates shock and prevents the sense of thirst so frequent after extensive abdominal operations, the fluid being freely absorbed into the circulation from the peritoneum. As to drainage, I closely follow the aphorism "When in doubt, drain." I have never regretted doing so, but sometimes have the neglect to do so. I always use glass drainage tubes, generally Keith's, and insert a twisted strip of gauze to the bottom and hanging well out of the open extremity, to serve as a capillary siphonage. I consider to wash out the peritoneal cavity by pouring in water out of a jug a very inefficient method, as only the surface water runs off. *Apropos* of drains in the peritoneum, I have occasionally left them in too long—say a week—the patient doing well with them *in situ*, and with the result that sometimes I have experienced difficulty in removal; this especially applies to gauze drains, which of course one is not so likely to leave in as glass tubes. In any extensive search over the intestines, say to find a wound or hole, I think it better to allow them to be extruded into warm wet aseptic towels than to endeavour to keep them inside the

abdomen; indeed, I have little fear of bowels extruded during operation, provided they are gently handled, with clean hands, and kept warm in aseptic towels or sponges.

It has happened to me on several occasions to open the abdominal cavity, in the sure conviction that I was about to remove a cyst or tumour, to find there was nothing of the kind; most of such cases have been tuberculous peritonitis, matting together intestines and contents, so as to simulate a defined tumour, but separation of the intestines, omentum, etc., as far as seems safe, and flushing out with hot water, are most successful; indeed, one cannot explain the marvellous effect of operation or tuberculous peritonitis, except by supposing the operation excites unusual active absorption of inflammatory products by the lymphatics of the peritoneum. Repeatedly have I sewn up cases feeling that I had failed entirely in what was my intention, and that nothing but death remained for the patient, to find the most surprising benefit result; and even in cases eventually proving fatal, the inevitable had obviously been delayed by the operation.

TRANSFUSION OF SALINE FLUIDS.

A few words may be said as to the intravenous injection of saline fluids into the circulation to combat shock, and the excessive loss of blood in any operation. I have the greatest opinion of its efficacy; it is easy to perform, and the results most striking: from four to eight pints are usually required, and ordinary hot water, agreeable to the hand, with a small teaspoonful of salt to each pint is quite efficacious.

In a recent case of mine of amputation through the hip-joint for old tuberculous disease, which had been put off far too long, the patient being extremely collapsed on the table, although the loss of blood had not been excessive, the injection of six pints of warm saline fluid into his median basilic vein produced at once a flush over the face, warmth throughout the body, and a full pulse. In this case the disease had advanced far in the ilium, the acetabulum being perforated; profuse suppuration continued, and the patient succumbed to exhaustion three weeks afterwards; but on the eighteenth day, when the man was lying in a hopeless condition, being absolutely unconscious, with eyes glazed and half open lids, quite insensible to any external impressions, with cold, clammy skin, *facies Hippocratica*, and no pulse to be felt, I again injected over six pints of warm saline solution into the vein of his arm, with this result, that a feeble pulse returned at the wrist, his aspect improved, the conjunctival reflex returned, and the man spoke a few incoherent words; but, of course, there was no hope for him, or any permanent improvement, and in a few hours he relapsed into his former moribund condition.

There was not, however, the slightest doubt as to the marvellous effect of the transfusion. I am not aware that it has hitherto been used except to combat shock, the immediate result of operation, or hæmorrhage. The above shows that death, imminent from diminished intravascular pressure from any cause, may be delayed by filling the blood vessels with saline fluid.

AFTER-TREATMENT OF CASES OF ABDOMINAL OPERATION.

In the after-treatment of cases of abdominal operation, my aim is to give nothing by the mouth for the first twenty-four or forty-eight hours, except occasional sips of water, and not this unless thirst be present, which it seldom is if fluid has been left in the peritoneal cavity; to give small (4 ozs.) nutrient enemata of beef-tea every six or four hours. If a catheter be necessary the patient should not be bothered with it too often, as is frequently done by officious nurses. I never give ice to suck under any conditions; it only accumulates iced water in the stomach and causes depression, and never give morphine in any form unless absolutely obliged for pain, and then it must be given subcutaneously and as little as possible. I give aperients early and as required, and especially if there are any signs of commencing peritonitis or distension, my favourite form being calomel in tenth of a grain doses every quarter of an hour. I am convinced that morphine is the "last straw that breaks the camel's back" in many cases of abdominal disease and operations where there is any tendency to stasis of the peristaltic action of the intestines or distension. I have seen patients who were in my judgment killed by a moderately big dose of morphine given to allay pain from distension, say in tuberculous peritonitis, or dilatation of the stomach.

SOUTH WESTERN BRANCH.

THE PRELIMINARY EDUCATION OF MEDICAL STUDENTS.

By PAUL Q. KARKEEK, M.R.C.S. and L.S.A.

President of the Branch.

I PROPOSE to bring under your notice the important question of the education of the intending medical student prior to beginning his professional studies. I venture to propound this