cases might lessen the danger. The distinction of hypertrophic and atrophic was good if used without necessarily employing a different causation. "Hypertrophic" should not be used as synonymous with "biliary." The "publican's liver" was often a large one. The ascites was probably not due to purely mechanical causes. The extent of liver dulness was not by any means a good guide as to the size of the liver. Although not denying that in those exceptional cases in which the inferior vena cava was surrounded by liver tissue, oedema of the lower extremities followed as a direct result, he was doubtful if cirrhosis could ever be regarded as a mechanical cause of oedema of the lower extremities.—Dr. HUTCHINSON (Scarborough) drew attention to the very lengthy list of causes of ascites, and was very much relieved to find on listening to the debate that most of them had no symptoms, and that after all the alcoholic form was the one which practical men had to face. He drew attention to the fact that cirrhosis had a tendency to generally lower the general tone of health, and that therefore small congestions here and there, in the lungs or kidneys, were very difficult to cure, hence the temptation to send the cases abroad for change. He mentioned a case which had been sent abroad on this account. Sea-sickness brought on hæmorrhage which ended in death, and he appealed to physicians to go a little more into cases before with a light heart sending them across the seas.—Dr. KATCLIFFE said, in reply to Dr. Griffith, that Dr. Wilson and he had purposely refrained from mentioning the collateral correlations other than the important one through the coronary, œsophageal, and pericœsophageal plexus, into the diaphragmatic veins, and so into the inferior vena cava. This was mentioned because it was capable of very great dilatation from the shortness and directness of its course, and because ulceration of the varices of the submucous œsophageal veins was probably the chief cause of hæmatemesis.—Dr. SAUNDY, in replying, thanked the Section for the kind way in which it had received his paper, and expressed his gratification at the nature of the discussion which had been elicited. He agreed with Dr. Thomas in thinking that the symptoms he described were very common in the early stages of alcoholic cirrhosis, but he believed these symptoms to be due to gastro-intestinal catarrh, and that no one of them was directly evidence of the existence of cirrhosis. While agreeing, too, that cirrhosis due to beer drinking was perhaps more commonly attended by hypertrophy than that due to spirit drinking, he could not accept the view that this was a rule, as he had in his mind two cases of enlarged cirrhotic livers due to spirit drinking. With reference to the criticisms as to the introduction of scarlatinal interstitial hepatitis as a form of cirrhosis, he agreed that it was wrongly so placed, as it was not certain that it did lead to the naked eye changes generally associated with the term cirrhosis. It was introduced into the paper because of the probability that this condition might be the cause of the cirrhotic livers of unexplained origin met with in young children. He agreed with Dr. Handford and Dr. Griffith in thinking that the ascites might have to some extent an inflammatory origin, and he had put forward this view in the article on the liver contributed last year to *Fowler's Dictionary of Medicine*.

ANTIVIVISECTIONISTS AT FOLKESTONE.—A meeting was held at Folkestone last week, which was addressed by Mr. Berdoe, M.R.C.S., and Mr. B. Bryan, secretary to the Victoria Street Society for the Suppression of Vivisection. The former speaker concluded a long speech by saying that "he could not put his hand on any one great discovery in medicine that could not have been come at by clinical experiments." Dr. Tyson answered many of the arguments of the former speakers, pointing especially to the advances gained from vivisection; he spoke of the triumphs of brain surgery, of the detection of poisons that had killed human beings by experiments upon lower animals (as in the Lamson case); he contended that vivisection had done more for humanity than any other kind of experiment, and concluded by remarking that he believed the result of Koch's experiments would be that thousands, if not millions, of humanity would be thereby saved. After other controversial remarks by Dr. T. Eastes and Dr. F. Eastes, the meeting passed votes of thanks to the lecturers. The best thanks of the medical profession, however, are due to our three *confrères* for this excellent endeavour to stem the tide of prejudice and of credulity respecting this subject; which experienced lecturers know only too well how to stimulate in the minds of a non-scientific audience.

THE BRADSHAW LECTURE ON MODERN ABDOMINAL SURGERY.

*Delivered at the Royal College of Surgeons of England,
December 18th, 1890.*

By SIR T. SPENCER WELLS, BART., F.R.C.S.,
Surgeon to the Queen's Household.

[Concluded from page 1416.]

BEFORE I pass on I cannot avoid contrasting Matthews Duncan's conclusion respecting ovariectomy in 1857, a year before my first case, with the present position of the operation. My own completed operations alone amount to 1,230, with 19 additional operations for the second time on the same patient, or 1,249 in all. Several other operators, at home and abroad, can count their cases by the hundred; and it is certain that the immediate results are fully as satisfactory as those of any serious surgical operation. The subsequent history of the patients for several years after operation has been more fully and accurately obtained and recorded than can be said of any equally important operative work. Let me ask, could anyone have imagined that, in such a small hospital as the Samaritan, in little more than thirty years, there would be performed, as there have been, 1,378 cases of ovariectomy, with a mortality of only 14.13 per cent., or that, in the last four years, in 259 cases, there have only been 12 fatal, a mortality of only 4.40, less than 5 in the 100? It is equally remarkable that in successive series of 100 cases, and in successive periods of five years, from the earliest cases until now, progressive improvement has been more steadily maintained in this hospital than in my own practice.

UTERINE TUMOURS.

When I lectured here in 1878, on uterine tumours, and gave the history of the whole of my practice up to that time of their removal, or attempted or partial removal, very few surgeons here or abroad had much experience of the operation. Now, it has become, if not as frequent as ovariectomy, still an operation in which not only some British and American, but German and French, surgeons can tabulate their cases by the hundred. And some important practical questions, still undecided, may be discussed with the help of accumulated facts. Perhaps the most remarkable conclusion of any is that of the most successful of all operators who has had a larger experience of these operations than I or any other surgeon has had—Dr. Keith. His results are magnificent; yet after trial of Apostoli's method of electrical treatment, he wrote:—"So strongly do I now feel on this subject that I would consider myself guilty of a criminal act were I to advise my patient to run the risk of her life—and such a risk—before having given a fair trial to this treatment, even though I were sure that the mortality would not be greater than that which hysterectomy has given me in my private cases—under 4 per cent."

This is a declaration which must be regarded as phenomenal, coming as it does from a man who is known to observe scrupulously, to think calmly, to reason logically, to decide deliberately, and to act conscientiously. It ought to be, one would imagine, sufficient to check the folly of reckless, indiscriminating laparotomists, and to make their imitators hesitate before risking human life, and it gives matter for grave reflection to all those who have to bear the responsibility of advising and cautioning in such cases.

Dr. Keith tells me that he has not since done more than three hysterectomies, and for fibrocystic tumours only, and one castration. This persistent abstention implies his own emphatic condemnation of his former practice, which, as he says, always "vexed him with anxious doubts and fears," and at the same time it indicates hopeful confidence in the alternative method of treatment he has adopted. Under the circumstances an attitude of watchful expectancy is what is most fitting; while everyone who has gone through the trial of dealing with the perplexities of giving counsel and acting in these cases must hope that further evidence will establish

the fact that in electricity we shall find a resource which, if it does not supersede the knife, will render the necessity of its use much less frequent.

BATTEY'S OPERATION OR OÖPHORECTOMY.

In some large uterine tumours, where electricity is not likely to succeed or has failed, menstruation may be stopped by operation on the ovaries, and involution of the morbid growth may be reasonably hoped for. Removal of the ovaries to prematurely stop menstruation was a philosophical suggestion brought forward by Blundell as long ago as 1823. Carried out as it was by Battey, after 1874, restrictedly and with all due precautions, no objection could be made to it. Hegar's adaptation of the operation to cases of uterine fibroids was just, but of limited application. The proposal to extend its use among patients having no tangible disease, but with symptoms difficult to manage, was dangerous. I was far from disposed to put any obstacle in the way of any legitimate operation. I knew, by my ovariectomy experience, how harassing it was to persist, even when right, in the face of prejudiced opposition, and what acute pain may be caused by unfair imputations. But here there was so evidently a perilous temptation in the way of loose professional morality, that, in 1884, I felt bound to express myself thus: "Though I accept the principle, I am sure that the operation has a very limited application, and is so open to abuse, that its introduction in mental and neurotic cases is only to be thought of after long trials of other tentative measures and the deliberate sanction of experienced practitioners." Mortal diseases admit of mutilating and desperate remedies. But mutilation for the sake of terminable maladies (which are the fruits of a vicious civilisation or a reckless procreation) is rather a question for the moralist than the surgeon. It was not without reason that I did this. At the date of the London meeting of the International Medical Congress, Battey who (in course of several years, and with almost unbounded opportunity of selection, furnished him by a sort of consultative epidemic which followed the exposition of his principles) had only found fifteen cases in which he could see occasion for practising his operation. He expressed surprise at the supposed necessity for its frequency in our country. My own experience, and that of many men of repute, forced me to coincide with Battey's reserve and moderation. But an acquaintance with the sectional medical literature, and especially the journalistic publications of the last ten years, leaves the conviction that the contrary propensity is alarming the profession. The constant reproduction of lists of unsequenced oöphorectomies is an accumulating proof of a mischievous activity, unless it can be explained away by the supposition that some of the authors are deluding themselves. The marked attempt to specialise and isolate gynaecological proceedings is an unfavourable manifestation, and creates a fear that in the absence of restraint the profession at large will have to bear up against the rebound of adverse public feeling. When in society and at the clubs it is impossible to avoid sarcastic allusions to the eclipse of the common sense of the consulting room—when it has become not uncommon to witness in women, far below the stage of matronhood, a flippant familiarity with the jargon of gynaecologists, and a proclivity to yield to some of their eccentricities—when at the domestic hearth it is painful to hear reflections upon a suspected relaxation of professional moral integrity—it is beyond a doubt that some unfortunate influence has been at work which justifies the sneers and misgivings of men, and accounts for the newly manifested perversity in women. There is perhaps a tendency to forget that the mental soundness and purity of our patients is presumed to be as much in our keeping as their bodily health, and that our honour binds us to respect the one as much as to tend the other. We must admit, it is true, that the tendency is as yet very small, but a speck of the evil leaven is capable of entraining followers in many questionable courses and inflicting much moral evil upon society. There is a suspicion that there have been indiscretions, that the operation of oöphorectomy has been injudiciously performed without due explanation of its consequences and with mistaken prophecies of insanity or early death—that in certain circumstances the bounds generally recognised as those which should limit deliberate and consultative practice have been overstepped, that recoveries from the operation have been incorrectly counted as cures of the diseased condition, and that all failures have not been recorded. All this has excited a suspicion in the public mind—and in the mind of the pro-

fession—that some of the recent expansions of abdominal surgery have not been used in a manner to increase respect for the profession, and is thought to require denunciation. I abstain rigidly from any personalities, and take my stand on general evidence, and the unquestionable existence of an uneasy feeling widely abroad. My early warning was partially unheeded. I now make a sturdy and urgent protest against any abandonment of the true principles of professional conduct, and against the abuse of an operation good in itself and valuable when wisely adopted, and I am sure that the sober-minded and right-hearted majority of our profession will emphasise that protest in no measured terms.

Let me repeat that in properly selected cases of innocent uterine tumours, removal of the ovaries is undoubtedly useful and has been done in a few cases by me with satisfactory results, and much more frequently by other surgeons. But there are other cases where social and other considerations lead to the advisability of early myomectomy or hysterectomy.

MYOMECTOMY OR HYSTERECTOMY.

One of the specimens on the table is of historical interest as the first in which a uterine fibroma had been recognised before operation and successfully removed by abdominal section in any British hospital. I operated in June, 1871. The patient was then 46 years of age. She had enjoyed good health until a few months before, and died nineteen years after the operation of some cardiac and pulmonary disease, without any return of abdominal trouble. The tumour was surrounded by fifty-nine pints of peritoneal fluid, which had produced a large vaginal rectocele. The tumour was separated from the right side and back part of the fundus uteri with an *écraseur*, but it was afterwards necessary to stop bleeding by a large pin and twisted suture fixing the stump like a clamp outside the abdominal wall. The patient lived until this year, and died of some chest disease.

Such cases are undoubtedly much less frequent than they were only a few years ago, but still they do occur, and the mode of dealing with the pedicle, or the seat of connection with the uterus, becomes the most important of the steps of the operation. In England the extra-peritoneal treatment by pin and *serre-neud*, by elastic ligature, or the clamp, has so far yielded better results than intraperitoneal ligature. In Germany the reverse is the case, and I cannot help thinking that, as in ovariectomy the clamp at one time gave better results than the ligature, but gave way to intra-peritoneal methods, so it will be with myomectomy. But this is a matter for further observation, and improvements in the mode of applying the ligatures will no doubt be suggested.

The principle which I from the first insisted on, of uniting not only edges but flat surfaces of peritoneum when closing the opening in the abdominal wall in ovariectomy became of even greater importance in closing the uterine wound in Cæsarean section, and the divided edges of the peritoneal coat of the uterus in myomectomy. In my comments on the case where I first closed the uterine opening in Cæsarean section I contended "that the peritoneal edges of the divided uterine wall should be carefully brought together, like the parietal peritoneum of the abdominal wall, by many sutures, or by uninterrupted suture along the whole extent of the gap." Säger carried out the principle more completely by the use of a double row of sutures, and in his earlier operations by the removal of any subperitoneal uterine tissue which interfered with the complete apposition of the two peritoneal surfaces formed by the inverting of the two peritoneal edges. In his later operations he has been content with bringing the edges into accurate contact, and I have recently done this very successfully in myomectomy, only using one row of sutures when this was sufficient to stop bleeding and bring the peritoneal edges accurately together, but preferring a second row when the edges could be turned inwards and the two serous surfaces fastened together by superficial suture—whether interrupted or uninterrupted mattering very little. The two rough sketches show what I have done very successfully in two recent cases of myomectomy. Last June, assisted by Mr. Doran and Dr. Westland, I removed a very dense fibromyoma weighing nine pounds nine ounces, from a lady aged 33, attached on the right to the fundus uteri by a pedicle about two inches in length and breadth and one in thickness. This was easily secured and tied by triple ligature, as in ovariectomy, but, after removing a smaller sessile outgrowth not larger than an apple from the left of the fundus, where the uterine tissue was very friable, the ligatures cut through it, and there was very free bleeding. Each end

congratulate him upon his delay in publication until the patient's recovery has been well established.

ENTERECTOMY.

What would Astley Cooper or Abernethy, Lawrence, Syme, or Brodie, have said if a proposal had been made to cut away several inches of intestine, and, after uniting the divided edges of the upper and lower openings together, to return the intestines, and close the opening made in the abdominal wall. They all regarded a mere wound of intestine as almost certainly fatal, and thought life could only be saved by forming an artificial anus. How amazed any of these great surgeons, or any of their contemporaries, would have been if they had seen the specimen I now show you, which has been kindly lent me from the Museum of St. Thomas's Hospital. A boy, aged 14, was kicked by a horse one evening, and taken to St. Thomas's late at night. Next morning Mr. Croft, suspecting ruptured intestine and acute peritonitis, at once made an exploratory incision. He found faecal matter in the peritoneal cavity and a part of the ileum bruised and ruptured. The piece you now see was separated from its mesenteric attachment, and cut away. Makins's forceps, which are here, proved very useful in keeping the canal closed before the intestine was divided, and while the sutures were being passed. The mesenteric wound was closed by sutures, the cut ends of the intestine carefully adjusted, and fastened together by Lembert's sutures. About forty sutures were left in. The peritoneal cavity was carefully cleansed by warm boracic solution. No drain was used. The external wound was closed by silk sutures. Recovery was uninterrupted, and the boy was shown at the Clinical Society nearly a year afterwards in good health. The piece of intestine seen here inverted measures nearly three inches at the free border, but only about half an inch at the mesenteric border. The rupture is only about half an inch in diameter, but it had permitted free escape of faecal matter into the peritoneal cavity, and, if ever a life has been saved by a surgeon, this boy's was by Mr. Croft, and so will be many more if the practice he adopted is imitated.

Lembert's suture was employed in this and in other successful cases, but I cannot help thinking that Mr. Stanmore Bishop's is more perfect. He has described and illustrated it so fully in his paper published in the *Medico-Chirurgical Transactions*, that I need not now do more than point to the interesting preparations before you to show what accurate and complete union follows its application. The fine needles and silk Mr. Bishop uses are here, and his needle holder. I must, however, add a word of advice to those who may think of using them, that a good deal of practice in the study is necessary to enable anyone to use them with precision and at all rapidly.

My distinguished American friend, Dr. Senn, professor of surgery at Chicago, has made some valuable additions to the practice of enterectomy by teaching the use of absorbable plates of decalcified bone in facilitating the approximation and union of the two openings to restore the continuity of the intestinal canal. I have some of his plates here, preserved in an antiseptic solution as they are kept for use. They come away with the faeces about a week after the operation. They assist very much in securing complete apposition of the two serous surfaces, and Dr. Senn's method of slightly scarifying the two surfaces with the point of a needle doubtless adds to the rapidity and firmness of their adhesion. Similar scarification might be of use in the uterine suture, and I shall certainly give it a trial.

I can strongly advise all operating surgeons to study carefully Dr. Senn's important memoirs *On Resection of the Cecum for Carcinoma*, and on *The Diagnosis and Operative Treatment of Gun-shot Wounds of the Stomach and Intestines*. They abound in original suggestions and in records of experimental and operative work. But I cannot do more now than allude to two cases of intraperitoneal rupture of the bladder, which are brilliant examples of modern abdominal surgery.

Intraperitoneal rupture of the bladder has been almost always fatal, but Sir William MacCormac had two cases four years ago where he exposed the bladder by abdominal section, carefully closed the rent by silk sutures, washed out the peritoneal cavity by warm boracic solution, closed the external wound, and perfect recovery was the result. These are the first of such cases on record, and they are brilliant examples of modern abdominal surgery. Careful diagnosis and early skilful operation earned their just reward. Silk sutures were passed about a quarter of an inch apart through the serous and muscular coats only, twice on each side of the opening, so that when they were tied the mucous mem-

brane was inverted, and two serous surfaces were fastened together on the principle I have spoken of before. The peritoneal cavity was thoroughly cleansed by irrigation, a glass drainage tube introduced, and a catheter fixed in the urethra. These were removed after three days, and in three weeks the man was as well as before the accident.

In a second and similar case the same course was adopted, with the exception of drainage, and recovery was even more rapid than in the first case. Accurate closure of the wound in the bladder by sero-muscular sutures and thorough cleansing of the peritoneal cavity were doubtless the chief points in these two operations. As Sir William MacCormac urges in his very able report of these cases,² in cases of intraperitoneal ruptured bladder there is need for "earlier interference and bolder practice." The whole history of abdominal surgery points in this direction.

Here I am compelled by the hour to close this very hasty and imperfect sketch of what we, the surgeons of the present, have done, and are doing, and how we do it. And for our younger Fellows and Members—for the surgeons of the future—we may not be confident that with the energetic spirit of inquiry now awakened, with an enlightened determination to apply all the resources of modern scientific discovery to the perfecting of our art—with a conscientious aim at making it as truly conservative as is compatible with usefulness and progress—and with honourable feeling and highly cultivated judgment, directing hands delicately and expressly trained, we may augur for the surgeons of the coming time an influence supremely beneficent for mankind, and promise to its devotees the dignity and distinction justly earned by their life-giving and health-preserving work.

[The following corrigenda should be made in the portion of Sir Spencer Wells's paper published in the *BRITISH MEDICAL JOURNAL* of December 20th, page 1415, col. 1, paragraph 3, lines 3, 7, and 15: for "Bonilly" read "Bouilly." Same page and column, insert in paragraph 4, line 6, after "recovery," "of patients;" and in line 8, for "then" read "their."]

AN ADDRESS

OR

THE DIFFERENTIAL DIAGNOSIS OF PELVIC INFLAMMATIONS IN THE FEMALE.

Read before the East London and South Essex District of the Metropolitan Counties Branch of the British Medical Association.

By CHARLES J. CULLINGWORTH, M.D., F.R.C.P.,
Obstetric Physician to St Thomas's Hospital.

I HAVE chosen the subject of pelvic inflammation this evening mainly for two reasons: First, because it satisfies the conditions courteously imposed upon me by your secretary that I should address you on some topic of everyday interest to the general practitioner and that I should let my remarks be practical; secondly, because I am able to illustrate it from cases that have recently occurred in my own practice at St. Thomas's Hospital.

Those of us who occupy positions on the staff of a hospital ought continually to bear in mind that in accepting those positions we undertake great responsibilities. I have always been of opinion that one of the greatest of these is that of making such use of our exceptional opportunities for clinical observation and research as will best help to advance professional knowledge and give to our brethren who are engaged in the engrossing duties of general practice the benefit of our experience and results.

By pelvic inflammations I mean pelvic peritonitis and pelvic cellulitis, and not inflammations of the various viscera contained in the pelvis. These latter will only be dealt with so far as they are concerned in the pathological processes that lead to the affections I have just named.

Is it possible clinically to distinguish between inflammation of the pelvic peritoneum and inflammation of the pelvic connective tissue? I believe that in most cases it is. The diagnosis is undoubtedly beset with difficulties, and, in the present state of our knowledge, there are still some cases where it is impossible. Year by year, however, their number is diminishing. Our

² *Lancet*, December 11th, 1886.