A longitudinal incision about 4 in. long was made over the tumour. On cutting through the integument and deep fascia, dark clots and about a pint of dark fluid blood were turned out. On exposing the femoral vein, it was seen that a sharp spicule of bone broken away from the pubic crest had penetrated the vessel just as it came under Poupart's ligament. The tear in the vein was longitudinal and about $\frac{1}{2}$ in. in length. Further haemorrhage was controlled by digital pressure below the laceration. The vein was repaired by lateral phleborrhaphy, a Lembert suture of fine thread being inserted with a domestic needle. The spicule of bone was removed and a tube with gauze packed tightly round inserted into the cavity. Towards the end of the operation the patient's condition became critical, and about 4 pints of normal saline were infused into the median basilic vein.

After-History.

The tube and gauze were removed on the third day after operation, and the patient lay between sandbags with a tight binder over the pelvis for a month. He was then discharged, and was able to walk from the ward. There was never throughout the convalescence any swelling or oedema of the limb, which remained quite painless. It is therefore most probable that at no time was there any venous thrombosis of any extent.

An x-ray photograph taken a week after operation showed a flake of bone torn away from the pubic crest to about $\frac{1}{2}$ in. from the pubic spine. The diagram shows the condition.

Arrow denotes point of fracture and spicule of bone. (Drawn from actual skiagram.)

Although laceration of the femoral vessels is a well recognized complication of fractured pelvis there are few, if any, cases on record; certainly none treated in this manner with success. The interesting physical signs in this case making it possible to differentiate the venous haemorrhage from arterial were very striking, as also the complete absence of venous complications after vein suture.

Lejars states that there have been several successful cases of suture of vein trunks reported. Out of six of the inferior vena cava there were four successes and two deaths. Jacobsthal has collected 53 cases of suture of large veins; in two only of these did lateral suture fail.

It is thus evident that a large vein such as the femoral should always be given a chance by suture rather than resorting at once to ligation, as the results of femoral vein thrombosis are so often unfortunate, to say the least. In cases in which lateral ligation (partial) can be carried out suturing can in nearly all cases replace it, and the chances of secondary haemorrhage are said to be less than in lateral ligation. In infected wounds or veins injured by sepsis suture is useless.

Lejars recommends round needles as used in the above case, and sutures of sterilized thread soaked in aseptic vaseline. He is against a Lembert suture being inserted, and always does a through-and-through suture. It is quite evident that if a Lembert suture is possible it is preferable.

My thanks are due to Mr. A. H. Burgess, F.R.C.S., and Mr. H. Buck, F.R.C.S., for permission to report these notes.

THE seventh Congress of Austrian Balneologists will be held at Meran in October (11th to 13th). Numerous papers have been promised not only from Austria, but from Hungary, Germany, and Switzerland. A special feature will be a formal tribute of acknowledgement of the work of Professor Winternitz, who has for many years been President of the Austrian Balneology Society. Communications relative to the Congress should be addressed to Dr. von Aufschneider, Baden bei Wien.

REFLECTIONS AFTER TWENTY-ONE YEARS OF GENERAL PRACTICE.*

By F. W. JOLLYE, M.D., F.R.C.S.,
ALRESFORD, HANTS.

DANTE says that "all men are delighted to look back," and it is as well that it is so, for only by that means are we able to think over our experiences—successes and failures—and see how they can help us to steer a course in the future which shall not only increase the unity and concord among ourselves but also our power to lessen the sorrows and the average sum of human suffering. Never was the general practitioner better fitted by his training to undertake the treatment of disease, and never has he shown more than in the past few years, by his readiness to help on the work of preventive medicine, by his whole-hearted support of public health measures, that he is not here to get all he can out of life for himself, but to try and make the lives of others happier. And, although he is better qualified in every way to treat disease than he was, say, twenty years ago—owing chiefly to his greater knowledge of the cause of it—yet his responsibilities and anxieties have multiplied considerably without any corresponding acknowledgement by the public that his increased efficiency is worthy of better recognition. During the last twelve months the general practitioner has been passing through the most momentous times of this or any other age, and one has only to read the letters that have been published in the daily papers to see that our prospects are gloomy unless we fight shoulder to shoulder. We were all told at that very dull entertainment called the opening of the winter session that we were entering a noble profession, and ever since that blessed word "noble" has so rung in our ears that we seem as a body to have been quite mesmerized by it. Noble to suffering humanity we have been, and always shall be in the future, but have we shown by our loyal co-operation with each other the same nobleness of character? Have we not rather by our want of unity allowed ourselves to be at first cajoled and then threatened with ruin and disaster by self-seeking politicians, until at last we have realized that we must fight for principle and justice, cling to our ideal, and take hope in the remembrance that sometimes "from our desolation only does the better life begin." If we only reflect for a moment that medicine is the only world-wide profession following everywhere the same methods, actuated by the same ambition and pursuing the same end, it must seem to us all that it is only the want of unity, peace, and concord amongst ourselves that is responsible for the treatment meted out to us by certain sections of the community. During the last few months many men who for years stood aloof from the British Medical Association have come into the fold, having at last realized that the old maxim, "United we stand, divided we fall," is as true of the medical profession in its dealings with the public as it is of any other walk in life.

The protest made by some members of the profession, that we are forming ourselves into a trades union, seems, to say the least of it, illogical, for, while believing that each member taken individually is prompted by the highest ideal, they believe that when banded into a compact mass they are actuated by baser motives. Unless the majority of medical men are tradesmen, it is impossible to create a medical trades union. A union of professional men will be a professional union, and the more perfect the union the more possible it will be to maintain in each of its units the highest traditions of our calling. We object to being treated as tradesmen, as if our only duty is to supply all others with a bottle of medicine or liniment, very much as goods are supplied across the counter at a co-operative store, all the finer and scientific work which has been built up during the last fifty years being totally ignored or sacrificed to the cry for the "cheap doctor." It is to be hoped that all who have lately joined the Association will attend the meetings of our Branches and Divisions as frequently as possible, for by so doing they will not only increase their educational value, but help to promote that unity and friendship amongst the

*Being the Presidential address delivered before the Southern Branch of the British Medical Association.

members which is so very essential to the dignity and usefulness of the profession. As Sir William Osler says, "Unity and friendship, how we all long for them, but how difficult to attain! Strife seems to be the very life of the practitioner, whose warfare is incessant against disease, ignorance, and prejudice, and, sad to have to admit it, he too often lets his angry passion rise against his professional brother." The medical meetings come in here as a professional cement, and in a friendly, social way lead to a free and open discussion of differences in a spirit that refuses to recognize diversities of opinion in the non-essentials of life as a cause of personal animosity and ill-feeling. But not only do these gatherings promote professional social intercourse, but they continue our post-graduate education and culture, for even in populous districts the practice of medicine is a lonely road which winds uphill all the way, making it difficult to escape the malign influences of a routine life and of work in a narrow field.

Many of us looking back must regret the want of a more liberal education, for a little more classical reading would have taught many of us that even in the ancient days there were two classes of practitioners who were supposed to treat their patients very differently according as to whether they were club or private patients, and who were consequently held in very different esteem by the public. Plato in one of his dialogues refers to the two sorts of doctors:

The slave doctors run about and cure the slaves or wait for them in the dispensaries; practitioners of this sort never talk to their patients individually or let them talk about their own individual complaints. The slave doctor prescribes what mere experience suggests, as if he had exact knowledge, and when he has given his orders like a tyrant, he makes off with equal assurance to some other servant who is ill, and so he relieves the master of the house of the care of his invalid slaves. But the other doctor, who is a freeman, attends and practises upon freemen; he carries his inquiries far back, and goes into the nature of the disorder, he enters into discourse with the patient and with his friends, thus at the same time getting information from the sick man and also instructing him as far as he is able, and he will not prescribe for him until he has first convinced him; at last, when he has more and more brought the patient under his persuasive influence, and set him on the road to health, he attempts to effect a cure. Now which is the better way of proceeding in a physician and a trainer? Is he better who accomplishes his end in a double way, or he who works in one way, and that the rude and inferior?

It seems almost impossible that if we had read this and many similar passages from the classics in our youthful days we should have been for the last twelve months fighting the battle of the freeman doctor against enemies amongst whom we number some of our professional brothers, who seem to think that sufferance is the badge of all our tribe, and that the work we commenced fifty years ago in semi-charity should now be forced upon us, willy-nilly, at the point of the bayonet.

Looking back only the last twenty-one years one cannot help being impressed with the enormous improvement made in the lot of the working man, and how vastly enhanced is his wage-earning capacity, brought about by the agency of his powerful unions. Yet we, with our increased expenses both in our hospital training and in carrying on our practices, to say nothing of our increased efficiency in dealing with disease, are, I say without hesitation, taking lower fees than we were twenty years ago. And why? Because we have not the pluck to demand proper remuneration from those who can well afford it. I will give you an example from my own experience. I have had, as no doubt most of you here have had, letters from insurance companies running somewhat as follows: "Please examine Mr. So-and-so, and fill in the enclosed form under the Workmen's Insurance Act. On receipt of your reply we shall be pleased to forward you our usual fee of half a guinea." I have always answered that my usual fee is a guinea, and that I should be pleased to fill in the form on receipt of that amount. I have always received a satisfactory reply, with one exception, when I was informed that half a guinea was the fee considered satisfactory by many of the highest in the profession, and that it ought to satisfy me. To this I replied that I knew nothing about the highest in the profession, except that I had sometimes helped them to get their fees, but that they had never helped me to get mine, and I returned their form for some one else to fill up. Needless to say, I got it back with my guinea enclosed.

How much is lost in fees annually by the profession no

one can calculate, but it must be very large, and I put it down mainly to two facts:

1. Because we let the public teach us what our fees ought to be, instead of our educating them; and

2. Which is even worse, so many of us, rightly or wrongly, are afraid that we shall not be supported by our own colleagues.

That there is a good deal of truth in the last statement can be gathered from the fact that you practically always hear of neighbouring practitioners being described by the public as opponents, never as colleagues or friends; we are only the latter when we are on a hospital staff and doing gratuitous work.

I know the business side of our professional life is very distasteful to most of us, but that is no excuse why we should neglect it under the veil of charity, which, although perhaps soothing to our conscience, will not take the place of our first duty—making provision for our old age and those dependent upon us.

Again, our education must be kept up to date, and often a man starts with a total misconception of the prolonged struggle necessary to keep the education that he has, to say nothing of bettering it. The times have changed, conditions of practice have altered and are altering rapidly, and we must show the public that the general practitioner, as of old, is still the man with whom, humanly speaking, are the issues of life and death, since upon him falls the grievous responsibility in those terrible emergencies which bring darkness and despair to so many households. It is often said that the days of the general practitioner are numbered, that one part of our work after another is being taken from us and carried out—some say even as effectually—by unqualified people such as the midwife, the optician, the prescribing chemist, and the wholesale drug houses. The specious and seductive pamphlets sent out by the latter indicate a thralldom and credulity of the profession which is hardly surpassed by the public itself. For years we have been exploited by these firms, so that a large section of the treatment of disease is to-day controlled by the big manufacturing pharmacists.

If we are to be regarded in the future as clear-headed, cautious, and independent practitioners we must throw off the fetters which have been forged around us, and not trust so much to the free-gratis Christmas visiting list so thoughtfully presented to us annually by some firms to save us the trouble of thinking out our own prescriptions, and to draw their net more closely around us. The specialists, who are ever increasing in number, we are often reminded, will eventually swamp us; but, putting aside for a minute the question of severe surgical cases requiring operation, the point whether they do or do not rests to a great extent in our own hands; for while we realize that it is the specialist and members of our hospital staffs who must lay down the indication—and what is, perhaps, even of more importance, the contraindication—of treatment, we as general practitioners should not play a too passive part; but after carefully following the practice of our hospitals, and having made ourselves familiar with the medical literature of the day, should be prepared to express our opinion whether any line of treatment should remain a common object of practice, or be confined exclusively to the consulting-room of the specialist. During the last few years we have advanced firmly along a new road in the treatment of disease, due to specific micro-organisms, with the toxic products of which we are learning to cope successfully. The treatment with anti-toxins and vaccines bears out the truth of the old maxim of Celsus: "He will treat the disease properly whom the first origin of the cause has not deceived." Upon the general practitioner in the future will fall the duty of treating cases by these specific remedies, and, if we are to hold our own, we must not shy at "specific treatment," which, because it is specific, allows of no routine prescription and application. To take the case of the diagnosis and treatment of pulmonary tuberculosis. After the sorrowful experience of the tuberculin incident of 1890 and 1891, with its unenlightened and mistaken method of administration, it certainly seemed advisable to leave this remedy in the hands of those specially concerned with tuberculosis, but now that the specific diagnosis and treatment of the disease has been accurately investigated and its value and freedom from risk are well recognized and its contraindications fairly evident, the treatment

ought to be recommended as a suitable one to be carried out by the family doctor. If we aim at mastering tuberculosis, no matter by what means, it must in the future become and remain, as will the chief work in stamping out infectious diseases of all kinds, the domain of the general practitioner. By the aid of tuberculin he will enable his patient to reach the sanatorium—if that is considered necessary—in good time, and in case he be obliged to leave too soon, would, thanks to the same after-treatment, stand a much better chance of being cured. We shall constantly miss early cases and diagnose others wrongly if the last and keenest diagnostic agent—tuberculin—in one way or another is not used and its results compared with our clinical observations. This must be so, for sanatorium physicians tell us that 50 per cent. of the patients admitted are in the second or third stage, and nearly 6 per cent. are not tuberculous at all. Want of clearness on the part of the practitioner is far more often responsible for the incurable cases than the patient's neglect to consult a doctor in time; this is greatly to be deplored, because it is the severe cases which, up to now, have formed an inexhaustible source of ever-fresh infection. I need only add that in many cases the test is unnecessary and in others superfluous and harmful, and that, like the *x* rays, these methods of specific diagnosis are not designed to replace but to supplement other approved methods of physical diagnosis and to enter the field when they fail. Unless we always bear this in mind, we are very apt to become what has been called "test-tube" diagnosticians; failing to use our hands and eyes, as our predecessors did, we shall be liable to lose our powers of observation, and be continually trusting to the clinical laboratory to put us right and to suggest the treatment. That the old methods of diagnosis are liable to be neglected, and too much reliance placed on the newer and more fashionable remedies without a sufficient examination of the case, is only too plainly seen by the recent epidemic of vaccine injections for chronic nasal catarrh, which have often been undertaken when the only cure was by surgical operation for the removal of polypi, straightening a deviating septum or other obstruction, which was causing a chronic naso-pharyngeal congestion.

Last year we had a most excellent address by our late President, Mr. Child, "On Some Warrantable Intrusions of the Surgeon into the Abdomen." I think all who heard it or have since read it will heartily agree with his conclusions as to the necessity of the surgeon being called in in consultation very much earlier than he used to be, even though it be to similar cases that from time to time the general practitioner has pulled out of the jaws of death—more from good luck very often than anything else—without his aid. It has been said that the surgeon lives on the failures of the physician, and one object in the future will be, with the increased help of organotherapy and vaccines to reduce these failures to a minimum. Who knows but that oral and intestinal autointoxication, for instance, which seems to be answerable for many ills, will have been placed during our lifetime on a scientific basis, that each poison will be readily detected and its correct antidote immediately injected? Intestinal stasis and its sequelae, whether they be rheumatoid arthritis, tuberculous joint disease, or disease of the gall bladder, from simple cholecystitis to typhoid infection before the formation of gall stones, will be taken out of the hands of the surgeon, and we shall hear no more of ileo-colostomies and extirpation of the colon. Until that happy day arrives we shall have to go on perfecting our diagnosis, and by that means prevent many of those calamities, especially in abdominal cases, which we have all witnessed. That those calamities are often only the terminal episode of a chronic disease which may have been under medical treatment for a long time—perhaps only off and on—makes the tragedy, when it does come, so much the greater.

If I were asked in what particular it is the most necessary that the practitioner of the future should increase his skill, I should say, without hesitation, in diagnosis, especially the diagnosis of cases in their early stages. The cardinal symptoms of an intussusception, for instance; we were told, were the presence of a sausage-shaped tumour and the passage of blood per anum, and so they are in a fully developed case. But there is an earlier stage when the chief symptoms are a flatness and loss of resonance in the right iliac fossa due to the absence of the

caecum. The tumour in its earliest stage is round, and only becomes sausage-shaped later, when it has advanced far enough to cause a drag upon the mesentery, and if we pass a finger into the rectum we shall withdraw it covered with blood and mucus some hours before it is passed externally. The child operated upon in this stage will have a much better chance of recovery than if we wait until the late symptoms are evident. Diagnosis, not drugging, will be our chief weapon of offence against the ignorance and quackery of the masses, which seems to increase *pari passu* with civilization. Long courses of treatment when treatment is useless, as Sir William Osler has pointed out, lead to the misapplication of remedies, and so directly to that lack of confidence in our methods which is apt to place us, in the eyes of the public, on a level with empirics and quacks. At the present time, thanks chiefly to the surgeon, who has thrown light into obscure places, we have opportunities during his manipulations, especially within the abdomen, to see not only the parts immediately concerned in the operation but other organs which are exposed to scrutiny, and a new pathology has arisen, well named by Sir Berkeley Moynihan "the pathology of the living"; and it is the facts based on this pathology, upsetting as they are to our preconceived ideas, which will have to be grasped by the general practitioner if he is to attain to that better diagnosis, followed up by prompt and rational treatment. A *post-mortem* examination, if we have a reliable history of the illness, may be most instructive, but we only see that he died from a far-advanced pathological change which is quite irremediable. How different will be the pathology of the future—that of the living—when we shall be able to know the pathological conditions in the early stages which are causing the patient's sufferings, and straightway proceed to remove them. This new pathology has already told us—only to mention a few fresh facts—that duodenal ulcer is quite as common as, if not commoner than, the gastric form; that a pathological lesion in the right iliac fossa is one of the frequent causes of symptoms of ulceration of the stomach, even although hæmatemesis is present; that a gall stone in the common bile duct has not jaundice as its cardinal symptom, and is much more frequent than used to be thought to be the case when we had only the pathology of the dead to guide us. At the present time there is just commencing another method of studying the pathology of the living—I refer to the administration of bismuth meals, and by means of the *x* rays watching its progress through the stomach and intestinal tract. The pathology of many obscure cases of so-called dyspepsia, we must hope, will be by this method of examination put upon a surer foundation, and as it can be applied in any position, we may in the future be able to explain why some patients lose their pain while in bed, only to have it return on their getting about again.

Very often there is difficulty, both in medical and surgical practice, in getting at the root of the evil—it is so very easy to mistake secondary effects for the primary cause—and if this new combination of bismuth meals and *x* rays can help us to decide whether to attack the digestive tract at its top near the stomach or at the junction of the small and large intestine below, a great advance will have been made both in the medical and surgical treatment of the digestive system. If the general practitioner wishes to study this new pathology he will have to follow his patient as often as possible to the operating theatre, and in my opinion it is only the cordial co-operation of the hospital staff and the medical men in the neighbourhood that will prevent much of the knowledge gained at first hand being wasted. It requires sometimes a certain amount of courage to send a patient, at perhaps our first visit, some miles into hospital, often at great trouble and expense, with the view of an urgent operation being performed, when we have only probability to support our diagnosis. Bishop Butler has said that "probability is the guide of life," and this is more true of medicine than other professions. We have to act on probabilities in diagnosis very often, and the older one gets the less dogmatic are we inclined to become. Dame Nature seems to be kind and considerate to the young practitioner, and does her best to cover up his mistakes—in more senses than one.

There are two remarks I should like to make concerning county hospitals and similar institutions from the general practitioner's point of view: First, that it ought to be an

understood thing that no member of the honorary staff accept contract work, such as club and Poor Law, but in return for his experience and advertisement—a perfectly legitimate one—he should, if in general practice, demand a rather higher fee than those without such an appointment; in fact, should be more or less a local consultant whom we could call in, in perfect confidence that he is not competing with us on the same basis of fees as our own. Having more time for hospital work, he would be able to increase greatly his powers as a diagnostician. It is in that capacity we chiefly want him to give us a helping hand; for experience is sometimes fallacious and judgement difficult, and we want a surgeon who does not always require to look inside before he can tell us whether it is a case for operation or not. Many a man becomes a good operator with practice, but the art of diagnosis is a much more difficult one to attain, unless one has the advantages of a hospital appointment and plenty of time to devote to it. My second remark is respecting the out-patient department—the ordinary medical and surgical part of it. For many years there has been great dissatisfaction about it, partly because it is overcrowded and sufficient time cannot be devoted to the individual cases, and partly to the abuse of it by people who could well afford the small fee of their own medical attendant. In these enlightened days, when drugging is considered in many cases to be quite a subsidiary part of the treatment and more importance is attached to the prescribing of a proper dietary, to the methods of living generally, and to the housing and sanitary surroundings of the patient, does it not seem evident that this treatment would be much better carried out by their own medical attendant, by whom all these details could be investigated, and whose personal supervision would ensure all orders being more thoroughly carried out? Looked at from this point of view, I think the out-patient department ought to be shut down, and, using Sampson Gamgee's phrase, "turned into the poor man's consulting-room."

There are other points which one could have touched upon concerning our outlook for the future, but I am afraid I must have already wearied you. Let me conclude with a paraphrase of the words of Sir Thomas Browne:

If a man does not sell his soul, if he does not part with his birth-right of independence for a mess of pottage to the Ishmaelites, who harass our borders with their clubs and oppress us with their exactions, if he can only keep free, the conditions of practice are nowhere incompatible with St. Paul's noble Christian or Aristotle's true gentleman.

STERILIZATION OF THE SKIN BY SPIRITUOUS SOLUTION OF MERCURY PERCHLORIDE.

BY

COLIN CLARKE, F.R.C.S., M.B.,

CAPTAIN, R.A.M.C.

SIMPLICITY is the great advantage of the iodine method of sterilizing the skin, but iodine has certain disadvantages. A solution painted upon the scrotum, the anus, or the vulva causes considerable local inflammation, and the patient often suffers pain and discomfort for hours after the operation. Iodine stains all towels and clothing it comes in contact with, and the irritating vapour given off as the solution dries on the skin is most annoying to the operator.

Mercury perchloride in methylated spirit (strength 1 in 500) is a more powerful antiseptic than tincture of iodine, and has practically none of its disadvantages. It can be painted all over the penis, scrotum, anus, etc., and causes only a slight burning sensation when first applied. It can be freely used, and no local inflammation results as long as the spirit is allowed to evaporate. A small superficial burn, however, is caused by the spirit solution if a swab or towel soaked with it is left in contact with the patient's skin during the operation. This can easily be avoided. The perchloride solution does not stain clothing or towels, and no irritating vapour is given off as it dries on the skin. As an antiseptic the perchloride solution is very efficient, and no preparatory dressing of the skin is required before the operation.

The actual sterilization of the skin is very simple. The

skin is painted or swabbed over twice with spirit and perchloride solution immediately before the commencement of the operation.

Method.

1. A hot bath and a shave, if necessary, the day before the operation.
 2. When the patient is placed on the operating table the skin in the operation area is freely painted with the (1 in 500) spirit solution.
 3. A sterile towel is then thrown over the skin and the patient anaesthetized.
 4. Ten minutes after the first application of perchloride in spirit the sterile towel is removed, and the spirit solution is again swabbed all over the skin area for about one minute. The skin is now sterile and the operation can be commenced.
- If the spirit solution has been applied to the scrotum a final swab over with watery lotion is advisable, for any excess of spirit solution left between the scrotum and thighs causes a superficial burn.

The accompanying list is a record of 102 operations performed without any preparatory dressing. The skin in each case was sterilized when the patient was placed on the operating table.

Seven of the appendicitis cases, marked (a) on the list, were of the suppurative or gangrenous variety. After removal of the appendix the peritoneal cavity was drained, and in these cases the wounds naturally healed by granulation. In all the other cases the wounds healed aseptically, and no case of suppuration occurred.

The cases in Group I were prepared as above described with mercury perchloride in methylated spirit (strength 1 in 500).

The cases recorded in Group II were prepared on the same principle—that is, two applications of antiseptic with an interval of ten minutes just before the commencement of the operation. The reagents, however, were different, the first antiseptic paint being a 5 per cent. solution of iodine in rectified spirit, which ten minutes later was thoroughly swabbed off with a 1 in 500 solution of mercury biniodide in rectified spirit. These reagents, however, are much more expensive. Rectified spirit (hospital price, Malta) costs 3s. 7½d. a pint, whereas methylated spirit, which gave equally good results with mercury perchloride, costs only 3½d. a pint.

The ten minutes interval mentioned above could not always be accurately observed owing to occasional delays—for example, in the administration of the anaesthetic. However, it was adhered to as closely as possible in each case.

Operations.	Group I.	Group II.	Total.
Varicose veins	4	9	13
Varicocele... ..	5	9	14
Inguinal hernia	5	5	10
Umbilical hernia	2	0	2
Acute intestinal obstruction	0	1	1
Exploratory laparotomy	1	1	2
(a) Appendicitis (abdomen drained)	6	1	7
(b) Appendicitis (abdomen closed)	3	11	14
Internal semilunar cartilage knee	0	6	6
Fractured patella (wired)	0	2	2
Fractured femur (wired)	0	1	1
Fractured tibia (wired)	0	1	1
Ganglia and bursae excised	4	3	7
Sebaceous cysts, foreign bodies, etc.	9	5	14
Amputation (toes)	3	1	4
Circumcision	2	2	4
	44	58	102

CULTURAL EXPERIMENTS.

The following cultural experiments were undertaken to test the antiseptic power of the perchloride and methylated spirit solution (1 in 500).

Strands of dry, unprepared catgut were soaked in broth cultures of pyogenic organisms for eighteen hours. The in-