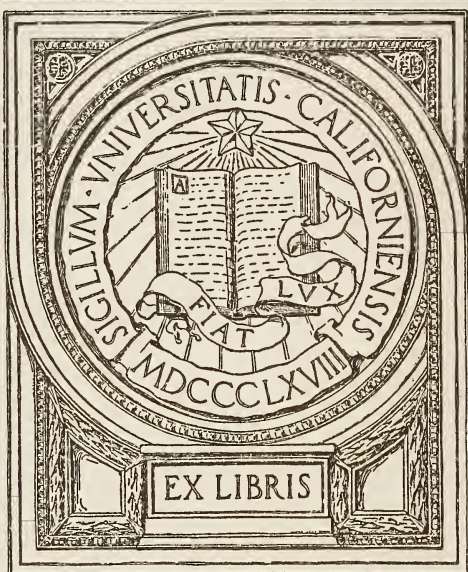
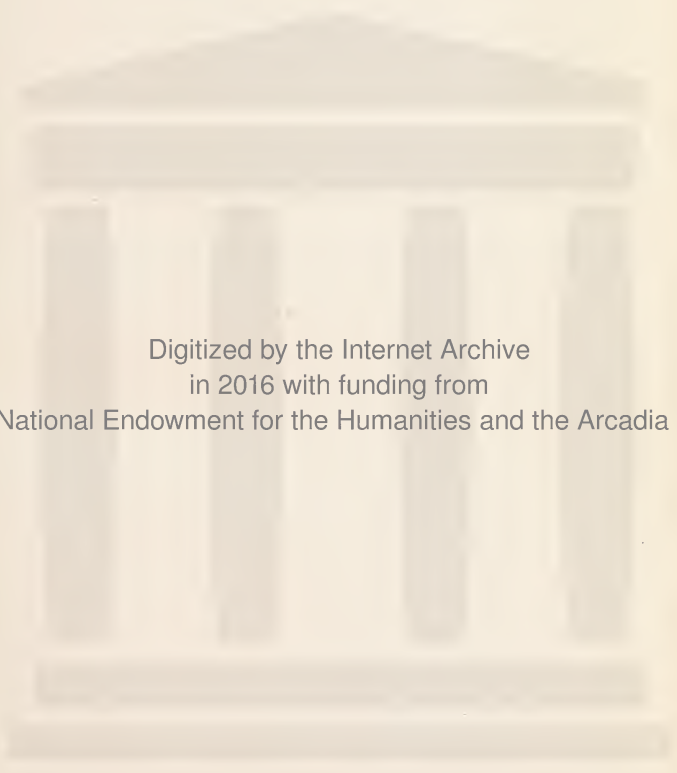


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[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

Appendicitis, and the Attitude of the General Practitioner as Well as the Surgeon Towards It.

INTRODUCING THE SUBJECT FOR DISCUSSION IN THE SECTION OF
SURGERY—LA. STATE MEDICAL SOCIETY.

By F. W. PARHAM, M. D., New Orleans.

In selecting a subject for discussion in the Section of Surgery I have had in mind the circumstances under which we meet, not in special sections, as in larger bodies, such as the American Medical Association, but as a single body composed of general practitioners of medicine and its allied branches. While the subject selected should naturally be surgical in character, it should be one that may prove of interest to the general practitioner as well as to the surgeon, and if possible should be one in which knowledge of a medical as well as a surgical character should be demanded in its discussion and where at the bedside the consultation of an internist with the

surgeon would often prove of decided advantage to the patient. Of no subject perhaps in the whole range of surgery can it be more strictly claimed that these requirements are fulfilled than it can be of Appendicitis, the subject I have after considerable reflection decided to bring before you at this meeting, and it is my special purpose to expose the salient features of the subject in such a way as to fix the attention of the general practitioner and to elicit from him an expression of his views in the general discussion which I hope will follow.

It is hardly necessary to defend my subject against the charge of being trite, notwithstanding the fact that no disease has been for nearly two decades more talked about both by doctors and by laymen than this. It is one of those subjects that never grow old, because there is ever something new to be said about it. Of appendicitis one can not certainly say with La Bruyère: "*Tout est dit, et l'on vient trop tard.*" But to say of this subject what is good only is indeed such a difficult task that I shrink from it with a vague fear that after I have said what I could I shall certainly find that I have left out much that should have been said. However, feeling as I do, that no audience is more considerate and gentle in its criticism than this, I proceed with my work.

Immersed well in the study of this subject one is forcibly struck by the enormous amount that has been written about it. By far the greater part of this is of little value or is repetition of what has been previously written, but the great mass of it shows the intense interest the disease has excited, and the practical results to humanity in the saving of life cannot be exaggerated.

I shall not weary you by any extended reference to the literature of appendicitis, attempting to give credit where credit is due, but a few words to indicate in the briefest way the material accessible to the lover of bibliographic lore, may not prove uninteresting, and I feel the more tempted to do this as a means of showing the difficulties under which I labor in attempting out of this great mass of facts and theories to present to you in an adequate manner the many points in such a discussion so long in controversy.

A few years ago, Edebohls went into an exhaustive study of this subject. He collected from literature up to the beginning of 1899 no less than 2,500 books, dissertations and journal articles, and

since that time, that is for the years 1899, 1900, 1901, 1902 and 1903, probably not less than 1,500 more have been added.

When one contemplates this enormous list and realizes that he has much more to do than to devote himself to this one disease, he must indeed be callous not to feel the immensity of knowledge and his own limitations.

A few considerations about the anatomy of the appendix:

Its variable positions, its short and, in many cases, incomplete mesentery, holding it in a curved direction; the insufficient natural provision against accidents to its circulation, as seen in the paucity of its vessels and their lack of anastomosis, make it anatomically peculiarly predisposed to trouble. It is, in short, a vestigial organ, and, like all such useless relics of arrested development, it may be considered a physiological structure without function, with such inherent structural defects that it is difficult to say that it is ever absolutely normal. It is not fair, therefore, to compare the appendix and the ovary, and to put indiscriminate operation upon the appendix in the same category as the former abuse of oophorectomy. One is useless while the other, though it may be unsound, is not necessarily functionless. A diseased ovary may cripple, but it rarely kills; an appendix may not only cripple, but often kills. Further, the removal of the ovary is often of doubtful benefit, whilst it is the exception for the removal of the diseased appendix not to do good. There is no objection *per se* to the removal of the appendix, and the signs of serious trouble are so frequently inadequate, that pathological change which is insufficient to justify the extirpation of the ovary, may often demand the removal of the appendix.

The appendix has not been inaptly called "the intestinal tonsil" by reason of the lymphoid structuré, and its peculiar follicular arrangement, and it is not unlike the tonsils in its peculiar exposure to the causes of inflammation and its remarkably prompt response to irritation. It is like the tonsil also in that one attack seems to predispose it to subsequent attacks. Moreover, the appendix is particularly exposed to inflammatory disturbances on account of the peculiar anatomical facts that it is a closed diverticulum, an internal blind fistula, a cecum of the cecum, to use the picturesque expression of Reclus, closely resembling a lymphatic gland.

These considerations give the appendix an absolutely unique

place in our organism, making it not an exaggeration to say that each one of us carries within him a violent explosive that needs only an infectious spark to set it off. Before going into those forms of trouble to which the appendix is liable, it might not be unprofitable for us to study further the characters of the normal appendix, and to examine the results of post mortem investigation into the frequency of pathological change in the appendix. Thus Fitz, who did so much to place the affections of the appendix on a proper pathological basis, called attention so long ago as 1886 to the large number of instances of actual perforation of the appendix discovered at autopsy, and demonstrated the frequency of long standing chronic inflammation without any history of acute attacks during life. Some most instructive data have been contributed by Tuffier.* He found lesions of the appendix frequent, which do not come under the head of appendicitis, and symptoms caused by them are not recognized during life. Besides, for surgical appendicitis there must be other forms more or less severe than the lesions revealed by the appendices alone: adhesion, congenital anomalies, atrophy, hypertrophy, obliteration of the appendix. In many cases the appendix appears to be sound to the eye, but the microscope discloses evidence of chronic inflammation. The peritoneum around the appendix was found intact in only 47 out of 146 bodies investigated from this point of view. In another series of 60 autopsies periappendicitis was manifested in 22, and in 13 it coincided with partial or total obliteration of the cavity of the appendix. In 15 others, the peritoneum was intact, but the appendix was obliterated or inflamed within. He concludes from these and other facts, which he recites, that the appendix is almost invariably chronically inflamed. More or less severe attacks occur accompanied by perilymphangitis, and hence defensive reaction on the part of the peritoneum. If the attack is mild, the adhesions protect the organ, and the attack subsides leaving scarcely any traces. These acute attacks occur with more or less frequency and the adhesions become more and more numerous until finally they may present the appearances left after surgical appendicitis, although the individual may never have had his attention called to the organ by any symptoms.

* Abstracts in *Journal American Medical Association*.

Riedel has recently announced practically the same conclusions after an examination of 313 inflamed appendices. Such evidence might be multiplied to show what a cursed little thing the appendix is. Indeed, we may well ask ourselves, is it ever absolutely normal? At all events we can never say in any case that it is so, and that it is not in some pathological phase which might easily pass into a dangerous condition of disease. When pathological change is made evident by the symptoms it has already usually reached a well advanced stage.

Eccles, in his recent Hunterian lectures, attempts to show how the study of the axis, color, consistence, and the surface of the appendix may furnish satisfactory evidence of disease, justifying removal, but this can only be said of the visible appendix, and even here he admits in some cases only the microscope can determine the question absolutely. If then it be impossible with the appendix actually in the hand to say always that it is absolutely sound, and should be spared, what argument can there be for leaving an appendix which has undergone such decided change as to manifest itself by symptoms? Right here then it is pertinent to ask, what is appendicitis pathologically and clinically? Pathologically, appendicitis means inflammation of any tissues included in the appendix. Thus, we may speak of the catarrhal inflammation, meaning by this that mucous membrane alone is involved, or of parenchymatous and interstitial appendicitis wherein inflammation has extended to the sub-mucous tissues, and especially to the lymphoid structures, and, finally, of the peritoneal forms with all their serious immediate and remote consequences.

Clinically, however, we are much restricted in our observation. So much of the pathological process eludes our most searching investigations without the assistance of *ante mortem* or *post mortem* examination, that some of the best authorities have excluded the consideration of any forms undiscoverable before death. So high an authority as Frederick Treves denies, practically, the clinical existence of appendicitis, for he says, **“its manifestations, effects and possibilities are those only of peritonitis,”* which are undoubtedly induced by the changes in the appendix itself, and it was to these primary changes antecedent to an attack, that Fitz

* Cavendish Lecture.

first proposed to give the name "appendicitis." Treves then denies that one can be said to have had an "attack" until the appendical changes have advanced and involved the peritoneum. If there be such a pathological entity as appendicitis without peritonitis, it remains for us to follow Treves in his discussion of the clinical manifestations, that is to say, of appendicitis without symptoms. On this subject he advances three propositions: *First*, an extensive inflammation of the appendix leading to great thickening of its walls, to wide spread ulceration of its mucous membrane to some degree even of stenosis, may exist without symptoms of any kind.

Second. Those changes marked by the familiar symptoms known as appendical colic, in which he says there exists a certain amount of colicky pain, more or less nausea or vomiting, but ending without further manifestations.

Third. Cases marked by trouble in the iliac fossa, which may continue for months without acknowledged attacks. To claim, however, that no one may have "attacks," that is to say, subjective and objective manifestations of pathological changes in the appendix unless the peritoneum be distinctly involved, seems illogical and inconsistent, for he admits that such symptoms as colic, nausea, vomiting and chronic malaise may mark a condition short of actual peritonitis. When he confesses that in several of these cases he has been surprised to find the appendix "full of pus," and then remarks that he "can not avoid the distinct belief that in these and other examples of uncomplicated inflammation, any advance of symptoms implies an advance of the mischief from the inner coats to the peritoneal surface," it would appear that he begs the question for he first assumes there can be no symptoms without peritoneal involvement, and then denies when advanced pathological change is discovered that it could give rise to symptoms without signs of peritonitis.

It is quite true that the symptoms marking appendicitis, even in grave cases, are exceedingly variable, often very vague and quite often entirely misleading. So that, after all, the views of Treves are not so inconsistent as they at first reading seem to be, and they serve at least a very useful purpose in that they emphasize the danger of waiting for pronounced symptoms of trouble, for if the only reliable signs of appendicitis are those referable to the peri-

toneum, then, when, clinically, *easily recognized*, these cases are all well advanced. The strength of Treves' position lies herein, that being so often unrecognizable by symptoms, trouble may always be feared when there is a distinct history of attack with symptoms. It is the treacherous nature of the disease that makes our attitude so different towards it and other surgical emergencies. Take hernia, for example. Operation for reducible hernia is now practiced as a routine procedure all over the world. We have learned that no objection lies in the risk of the operation, the mortality being insignificant, and yet why do we advise operation in hernia? For two reasons: first, even reducible hernia carries with it the idea of disability, and second, there is distinct danger always of future strangulation. No surgeon nowadays would persist in taxis, and certainly not in the presence of beginning strangulation, and every physician of capacity recognizes the necessity of operating as soon as the diagnosis of strangulation has been established. So that, so far as hernia is concerned, the consensus of surgeons all over the world is to operate at the most convenient time when there is no inflammation, in order to *prevent* it, and to operate without delay when strangulation has occurred. Now, see what conflicting views surgeons have with regard to the appendix. No surgeon advocates deliberate excision of the appendix unless trouble actually confronts him or has undoubtedly existed, and yet it is conceded that the removal of the appendix when there is no attack is attended by scarcely more risk than the Bassini or other standard operation for reducible hernia. Many even refuse to remove the appendix after the attack unless there be further trouble. There is greater divergence of practice with regard to the attitude toward the acute attack. Many, and the number is rapidly increasing, would operate as soon as the diagnosis is established, if seen early in the attack, but there is a growing tendency to wait and watch if an attack has lasted already a certain time. Here the parallel between strangulated hernia and appendicitis ceases. All surgeons would operate on strangulated hernia *at once* but it has been shown conclusively to my mind that some cases of appendicitis seen late have been destroyed by operation, when they might have gotten well if the surgeon had simply aided the spontaneous cure. The difference is here manifest: In strangulated hernia, the danger to life without operation is the greater, in appendicitis or certain

forms, the intervention of the surgeon sometimes adds a distinct danger. But let us look at the matter from the point of view of the inherent difficulties of deciding what is best to be done in the various forms of appendicitis. The keystone of the argument is the treacherous character of the disease, and the uncertainty of what is going on, or what is about to happen in the abdomen. In general, as regards the appendix, here are some of the things we do not know: **First*, the size of the appendix; *Second*, the length of the appendix; *Third*, the shape; *Fourth*, its position; *Fifth*, what part of it is affected, whether the tip, middle or the cecal end; *Sixth*, whether there is a stricture or not, a twisting, a flexion or an obstruction of any other kind; *Seventh*, whether peritonitis exists or not, and whether there are adhesions or not; *Eighth*, the character of the infection; *Ninth*, whether there is gangrene or perforation or whether the constitutional effects are due simply to absorption of the toxin from the lumen of the appendix. Sometimes, even, we cannot say that pus does not fill the peritoneum.

Now, this all means simply this: the course the case will pursue will depend upon the course which the unknown pathological process will take, which is an axiomatic way of expressing our ignorance of the matter. But one thing we do know is, that one attack predisposes to another, so that whatever may be said about the difficulties of diagnosis early in the attack, there can be little objection urged on this score so far as our course of action is concerned after one well marked attack has spontaneously subsided.

The diagnosis being settled by the observation of a complete attack, the probability of future attacks being strong, and the operative risk in the quiescent period being small, it is our duty to prevent another attack by removing the damaged appendix which is now simply a culture tube waiting inoculation from the cecum. The experience of all operators is a unit as to the harmlessness of operation here. Treves has operated in this stage 1,000 times with only two deaths; Maurice Richardson reported 238 cases without a death; Deaver 137, with one death; Ochsner 153, with two deaths; Thierry, no death in many operations. But it is useless to multiply statistics since there is a consensus of opinion that the risk of operation in chronic cases is trivial. Aimé Guinard, the

* Modified from Bernays.

writer of the article on appendicitis in *Le Dentu & Delbet's Surgery*, advises waiting until a *second* attack has been passed through, but it would seem to be preferable to follow the practice now becoming almost universal in America to operate after a patient has completely recovered from a well diagnosed single attack. There is no good reason for waiting for a second attack except uncertainty of diagnosis of the first. The attitude of the family physician is, therefore, plain, that he should at least take careful notes of any attack to be used as reference by any physician who may be called into the case subsequently. I have regularly refused to operate without a clinical report of the physician attending in the previous attack.

Now, let us take an individual who has passed through his first attack and continues for a variable period well without any operation. The family physician is called to see him, he finds him presenting the early symptoms of appendicitis, and the patient is able to furnish a history of an undoubted previous attack. It requires little in such a case to establish the diagnosis, since he has already had one attack. The only thing to decide is, shall you operate at once or wait for the quiescent stage? I think the course is clear here also. For various reasons the operation was not done after the previous attack, but it is certain the man has a damaged appendix; he has now emphasized that fact by having another attack. Two considerations are prominent here: first, the low mortality of operations in the first 24 or 48 hours exceeding only by a little that of operations in the cold stage; second, the great uncertainty of what is going to happen, and the serious doubt as to whether the patient can safely reach that stage. It would seem then that it is our duty to operate as soon as a favorable place and a competent operator can be obtained. This conclusion is well established by the two reasons already given and by a study of the cases conducted medically. We know the attack is the manifestation of infection but we do not know what will be the limits of the attack, nor whether, if the patient passes through it safely, the resulting adhesions or other pathological effects will not make him run greater risk later than now.

Légueu has well stated the objections to temporizing in the following propositions:

1. The treacherous calms are capable, when one is not on his

guard, of causing the doctor to delay to the great detriment of the patient, an operation which the lesions render immediately indispensable. On the third or fourth day of an attack of appendicitis which has commenced brusquely, the necessity of an operation seems urgent. Then suddenly the signs improve, the temperature falls from 39 (102.2) to 37 (98.6), the pains disappear, vomiting ceases, the patient is able to sleep, he wishes to eat, and believes himself cured. Here comes the treacherous calm; amelioration is only apparent, peritonitis has become diffused. And, if impressed by that new behavior, one delays the operation, that is the end of the patient,—death will not be delayed. Note, for example, the observation of Segond: a young girl had for some days signs of indigestion which soon gave place to a pain in the iliac fossa. Appendicitis was certain; with opium internally and ice externally everything improved, but in the morning at nine o'clock there was a reappearance of vomiting, violent chill, return of lively pain in the right iliac fossa, painful tympanitis with resistance well marked, the abdominal muscles drawn, face white, dry tongue, temperature at 39.3 (102.7), pulse 120. Now, at eleven o'clock of the same day all these phenomena gave place to a feeling of well being. The little girl seemed very cheerful and played on the bed believing herself cured. However, the pulse remained at 110, the temperature a little below normal, and Segond basing his action on these two symptoms, the only one persisting, operated. Peritonitis was already generalized.

2. The rapidity of the change is such sometimes that our watchfulness is caught napping, that is, sometimes at some hour of the evening or morning the tableau becomes dramatic, signs of peritonitis unfold themselves with a terrible rapidity. Berger reports some observations of acute appendicitis, the condition of which did not seem alarming, and in which, from one day to the next, the phenomena of infection or septic intoxication announced themselves, against which laparotomy was powerless. In the fifth month of gestation, a young woman, observed by Segond, was taken with appendicitis which seemed mild. The appendical region in fact continued soft, the tongue moist, the face reassuring, the temperature was 37.8 (100), and the pulse 96; there was no nausea, and gas was passed from time to time by the rectum. The next morning at eight o'clock a painful crisis appeared which was fol-

lowed by chills, elevation of temperature, acceleration of the pulse. The patient was operated upon some hours later; peritonitis was generalized. In spite of all efforts that young woman succumbed some days later. He had reason then for saying that the most careful watchfulness can be deceived. Who can deny, if that young woman had been operated on at the beginning of her crisis, she would have been very easily cured.

3. Finally, the signs of aggravation are themselves unreliable and inconstant. We wait to operate until the signs of peritonitis are announced. We rely on the pulse and the temperature, we count above all on that lack of correspondence, so frequent in grave forms, between the pulse and the temperature, the pulse being above 110, the temperature remaining below 37 (98.6). But there are forms of generalized peritonitis which are accompanied by neither acceleration of the pulse nor elevation of temperature. For example, bear in mind the patient of Dieulafoy, the temperature was normal, pulse 60; he neither vomited nor hicoughed; he was operated on nevertheless, and peritonitis was then generalized. The same way several patients operated on by Michaud had a normal pulse and a temperature of 37 (98.6). During the operation, however, the peritoneum was found full of pus, and the intestinal coils bathed in septic liquid. Finally Legueu shall describe those forms of appendicitis of which Hartmann has spoken, and of which he had himself also observed an unhappy example. "The patient was treated for a mild appendicitis; he was allowed to wait. The signs improved and recovery appeared certain. The patient rose and left the hospital. At the end of seven or eight days, he is taken brusquely with grave phenomena, and dies after some hours of generalized peritonitis, thirty in the case of Hartmann; and 24 hours in that which I observe."

The following case is taken from Tiffany's article on Appendicitis, *Wood's Reference Hand Book*. "A girl aged nine while at dinner with a friend was taken with an acute pain in the abdomen. She left the table complaining and went home. She vomited during the evening, and went to bed suffering much pain. I saw her the following morning, there was then acute pain in the right iliac fossa extending somewhat across the middle line of the body. The temperature by the rectum was 103.5, pulse 118, face flushed, thirst was complained of." He at once opened the abdomen, find-

ing a ruptured appendix and a piece of fecal matter in the peritoneal cavity. "Decidedly less than a day had elapsed since the first symptoms of discomfort or illness had been complained of by the child. It was probable that in this case, the occurrence of the perforation gave rise to the first symptoms recognized by the child, and that ulceration of the mucous membrane of the appendix and of its muscular coat had been going on for some time without the patient's discomfort. The child up to the time of its attack at the dinner table had been in active vigorous health to all appearances, and had been enjoying all the sports of childhood."

"It is" says Légueu, "quite true that everything is deceptive in appendicitis. Even with the most minute watchfulness, temporization exposes the patient to irreparable mishaps. For some patients who have gotten well under medical treatment there is an equal number who have died victims of that same medical treatment and temporization. I consider then as inexcusable, the practice which consists in applying medical treatment, waiting, watching and finally operating." He has often regretted having operated too late, but has never had to repent having operated too soon, because the timely operation prevents all the dangers of temporization. The results of medical treatment are understood in different fashions according to the statistics used. One can make out of statistics what he wishes. Thus Sahli in a work based on 7,213 cases of perityphilitis, found that cure took place spontaneously in 91 per cent. Biermer goes even further, raising it to 98 per cent. when the medical treatment has been properly carried out. "That," says Légueu, "is optimism run mad. I believe the figures more exact as reported by Chauvel who defends medical treatment of appendicitis, and ascribes to it a mortality of 30 per cent."

"Consult any surgeon whatsoever, open any book whatsoever, and you will see those unhappy cases where operation too late has been powerless to cope with the too extensive lesions. At the Society of Surgery during the last discussion the number of cases of suppurative peritonitis reported, were considerable and terrifying. Kirmisson reported 16 cases; Broca, 32; Tuffier, 10; Routier, 13; Chaput, 17; Michaud, 8, and Peyrot counted in his own practice at the Lariboisière, 20 cases of generalized peritonitis in 102. operated cases. Légueu himself in 37 operated cases found 10 cases of diffused peritonitis. There were then 128 cases of gene-

ralized peritonitis observed in several months of practice of a few surgeons,—128 cases with a mortality of 80 per cent. What is one to think of those figures if not that the medical treatment and procrastination to the utmost has had something to do with the aggravation of the conditions and the powerlessness of operation? If those patients had been operated on more promptly, there would have been at least 20 per cent. cured by the timely operation; and of the 80 which died, 50 at least must have been victims of medical treatment.”

The advocates of waiting and watching rely on the fact that the majority of cases of appendicitis recover under medical treatment. In other words, they represent that the dangerous form in which sloughing, or gangrene, or perforation of the appendix, etc., follow, are but few. Dr. Hawkins, quite one of the highest authorities on the subject, put the death rate of appendicitis at 14 per cent., and hopes it may be reduced to 12 per cent. “With all respect for Dr. Hawkins, I myself,” says Jacobson, “look upon the above estimate of 14 per cent. as too low when hospital cases are considered. Dr. MacDougall, in his address at Carlisle, in 1896, found the death rate of acute appendicitis was 25 per cent., and that the return of two London hospitals, St. Bartholomew and St. Thomas, gave a death rate of nearly 20 per cent., and it is doubtful if these returns include all the cases admitted of purulent peritonitis.”

The advocates of early operation maintain that, of the cures which were secured by medical treatment, say 80 or 85 per cent., many are not real, that lasting mischief is left behind, and that patients would be saved from great danger of subsequent attacks, besides great annoyance and suffering and much wasted time, if the appendices were removed in the first attacks. Many cases might easily be cited, showing how deceptive the medical cure of appendicitis is.

It would seem then that the evidence in favor of early operation is overwhelming, and can be briefly summarized as follows:

First, that the early operation is almost free from fatality;

Second, that 15 or 20 per cent. die in attacks medically treated. So that the early operation of acute appendicitis would not only save many patients from the very serious dangers of subsequent attacks but would spare them a large amount of suffering and

disability incident to an incompletely cured appendicitis. While then we may advocate the propriety of operating early in an attack, we must nevertheless admit that when cases are brought first to our attention after some time has elapsed, our course of action can not so easily be decided as in the cases that come to us early before serious complications have had time to supervene. These are the cases that give so large a mortality in the best hands,—as high as 30 per cent., and the high mortality in this class of cases has produced a reaction against wholesale operation in cases of appendicitis. The dictum of Dieulafoy, that every case should be operated on as soon as the diagnosis is made, can not be held absolutely true of those cases that are seen too late for an early operation. **“Two years ago, the majority of surgeons in France were inclined to operate immediately on most cases of appendicitis, following the lead of Dieulafoy who declared that no one should die of appendicitis, and that an immediate operation is the only safeguard for a patient. A certain number of surgeons still cling to this formula, but they are generally found among the younger men who, perhaps, lack the moderation and judgment that are apt to come with advancing years. The meeting of the Surgical Congress at Brussels in last September, presented a certain international character as numerous invitations had been sent to the most important surgeons of other countries. Broca, of the New Trousseau Hospital for children, gave a synopsis of his statistics since 1892, which proved instructive. For three years he considered it expedient to operate on all cases with very few exceptions and the mortality was 33 per cent. Out of 79 cases of appendicitis 7 were left untouched, 8 operated on after the attack, and 64 during the attack; with 26 deaths. In 1896 his death rate was 13.33 per cent.; in 1897, 1898 and 1899 only 10.85 per cent. One great trouble Broca well remarks, is that patients are purged two or three times by the physician, and the result is bad if not fatal. It can hardly be said that the improvement shown in 1896, 1897, 1898 and 1899 was due to improved technic, but rather to his habit of temporizing. His colleague, Kirmisson, had tried immediate operation with the result that he had 50 per cent. of deaths. He then turned to his former practice.”*

* Paris Letter to *Journal American Medical Association*.

If the operation could be performed on the first day the patient falls ill, there would be little or no danger of a fatal result, but it is generally only the third or fourth day that the physician calls the surgeon, and this delay may have given time for disastrous results.

When one studies the literature of the operative treatment of appendicitis he sees so much of conflict between the views of equally distinguished surgeons, especially as regards the indications for operation in this class of cases seen late that he will find it difficult to formulate rules for his guidance. He will be struck with the strength of the arguments of Dieulafoy, who boldly announced a few years ago that there was no medical treatment of appendicitis and impressed with the uncertainty of what is going on in the abdomen as shown by a few cases observed by him of violent toxemia occurring without perforation or gangrene of the appendix has continued to urge operation in all cases so soon as the diagnosis has been established; he will find such leaders as Légueu strongly upholding the views of Dieulafoy, and followed in France, somewhat tardily it is true, by men like Quénu and Aimé Guinard, once doubting Thomases, but now enthusiastically proclaiming the new doctrine in the words of Quénu at the *Société de chirurgie*. "I accept intervention even in subacute cases; the pulse and the muscular rigidity are illusory signs;" he will find further the Germans, ever thorough but always cautious, only comparatively recently awakened to the importance of appendicitis as a surgical disease, are now beginning to show the influence of such men as Riedel in their Annual Congresses and are taking advanced ground; then turning to England he is not astonished to see the splendid results of Treves and their other great surgeons are getting and yet surprised to find them less radical than their American brethren, and, bearing in mind the remark of Jacobson: "I am certain that the results of the best American surgeons are far superior to anything in this country and are but little known amongst us," he will finally turn to our own country and will at once be impressed by the patient and conscientious, but bold, surgery so apparent in many sections of this broad land. He will notice however, that all are not of one mind; all do not follow Deaver and Morris as the flock follows the bellweather without questioning. He will be convinced that splendid as are their results there are some vulner-

able points of attack in their management of appendicitis. They will see that their mortality in the late cases is higher than it should be and that they do not entirely agree as to the cases they severally except from the operation of the fixed rule that every case must be operated as soon as the diagnosis shall have been established. Our observer further will note the important departure made by Och-sner in the treatment of certain cases by starvation and absolute inhibition of intestinal peristalsis until natural barriers may be thrown out, and then he will go back to Europe and observe the decided trend toward a moderate course as shown by the Brussels Congress of surgeons.

It will be a relief after all this wandering through the mazes of literature to take up and read the classic work of Maurice Richardson. No one can read this careful digestion of the experience of a master surgeon in over 900 cases without being convinced of the strength of his position.

“There is a time,” he says, “when practically all cases will recover; but there is also a time when many will die—when an unwise operation or an unwise palliation will be fatal.” “If in every case of appendicitis, we operate as soon as the diagnosis is made, we may operate at that very time” he contends, “when the patient’s best chance lies in conservatism.” He thinks, and justly, that the most profitable study of any collection of cases of appendicitis is the study of the fatal cases. Now, it may, we think, truthfully be said of the great majority of these fatal cases that there was a time when operation would have saved them. The argument in favor of early operation then receives great impetus from the fatal cases. The practical objections to this argument are two:

1. That many cases do not come early to the physician and especially to the surgeon. They have often been injudiciously treated before consulting the physician, by brisk purgation and no restriction of exercise and food.
2. Early in the disease diagnosis is difficult in many cases. But we can certainly agree with Richardson, that if the diagnosis can be made within the first twenty-four or thirty-six hours, operation is advisable. As to cases coming on the third, fourth and fifth days, it *may* be sometimes best to wait. The rule here would seem in his opinion to be: If the case shows decided improvement in the cardinal symptoms, continue to wait if

possible for the cold stage; if there is sudden change for the worse, operate immediately; if the change for the worse be more gradual, if the cases be severe and remain stationary, operate without unnecessary delay. One may well hesitate to operate in conditions of profound collapse, although improvement is extremely unlikely without operation; the one chance in a hundred may be given if the probability of death on the table is fully explained to the friends. All cases of perforation, whether having gone on to general peritonitis or not should be operated on immediately; but there are some cases marked by large accumulation where operation might add the fatal straw. Especially in bad cases that are, however, improving is the advisability of intervention immediately questionable. The argument against waiting is the danger of rupture, but, as Richardson, it seems to me, very correctly retorts, "in carefully watched cases this accident can be immediately recognized, and, after all, it is but the spontaneous occurrence of what the operation deliberately causes." "The chances favor the policy of non-intervention."

In such cases the leucocyte count ought to prove of the greatest assistance in determining to intervene. The plan I would advise would be this: Immediately institute the plan of Ochsner and make a fourth hourly count of the leucocytes. If the count be high, say running up to 20,000 or more, operate at once in spite of symptoms; if the count low at first, rapidly increase to 8, 10, 12, 15,000 there is trouble and serious trouble somewhere; therefore, get everything ready for operation and don't get too far away from your patient until the leucocyte count is reduced to safe limits.

If the work of Cabot, DaCosta, Curshmann, Greenough, Cazin, Wasserman, Milian, Eccles, Joy & Wright, and a host of others be carefully studied, the value of the blood count in prognosis must be conceded. Its diagnostic value may perhaps be exaggerated, but taken in conjunction with the clinical signs the leucocyte count will often enable us to operate at the opportune moment.

Internal Antiseptic Therapy in the Treatment of Acute and Chronic Pathological Processes.*

By Dr. H. L. DUCROCQ, Lafourche Crossing, La.

The large number of special subjects discussed at our annual meetings is a difficult apology for the offering of this essay. Analysis, which dissects the whole into its component parts and turns back from effects to causes, must at times make room for synthesis, the logical process which diverges from principles to consequences and from causes to effects.

The latter part of the century just closed revealed wonderful strides in surgery; every active procedure found its anesthesia, its particular technic and convenient instruments at the hands of bold operators among whom we glorify so many Americans. But for its admirably specific armamentarium, surgery would still be the grimsome Reaper's slave, had not modern Listerian asepsis and antisepsis hoisted the flag of freedom from erysipelas, gangrene and pyemic infections.

The progress of practical medicine was slower, and it is only by gradual steps that specificity in disease dawned upon the minds of the great medical teachers and their disciples. It became evident that pathological processes, giving rise to a definite symptomatology, must of need be gotten by well outlined parasites or low organisms. The progress of microbiology was assured, and thoughtful and conscientious practitioners soon came to the conclusion that, in medicine as well as in surgery, clean, unspotted arms alone could lead to victory.

Through the factor of great mental or physical exertion or the neurasthenic tyranny of anxiety and disappointment, the normal anabolic and katabolic balance of the richly alkaline tissues is disturbed; a stasis or paresis of katabolism occurs, with its trinity of alkaline dissolution, element-oxidation and excretion of end-products. The tissue-continuity of living cells is disrupted by dying and dead cells in all stages of degeneration; this general hyperplasia of cellular elements begets an immediate pathological expression, and the therapist is brought in contact with the two classes of patients:—those of clear and delicate complexion with superficially distinct veins, bright eyes and delicate organization,

* Read at the meeting of the Louisiana State Medical Society, April, 1903.

especially prone to strumous and granulomatous pathognomonics;— and those of dull and thick skin with either an active temperament full of cachectic promises, or a phlegmatic nature associated with a marked adipose tendency and general peripheral capillary dilatation indicative of congestive pathognomonics.

All diseases come under one of two divisions:

1st. *A toxemia*, due to an organic or inorganic poison, preexisting or introduced into the liver, spleen, lungs and kidneys by circulating body-fluids; a delay of anabolic repair and a diminution of normal alkalinity and oxidative activity in these organs provokes katabolic stasis of all forms of detritus and gives rise to an acute infection which has an eventual tendency towards repair, from the phagocytic action of the cells of the lymph-glands, liver, kidneys and other organs. However, indolent chronic results will take place in the cells of the attacked organs, with grave degenerative changes of the oldest cells, if the absorption of non-pathogenic gastro-intestinal bacteria is added to that of toxins liberated in the process of tissue-destruction. Non-pathogenic bacteria are more prolific factors of disease than pathogenic ones, by the production of divers fatty and organic acids; and no one has yet proven that they do not assume new strength and virulence by becoming themselves pathogenic.

2nd. *Bacteremias* form the second class of diseases, and are primarily due to a lowered tissue-vitality, if we except the most acute infective disorders. Hyperkatabolism of unconsumed detritus and putrid cells in all grades and stages of degeneration favors microbial invasion, and the special pathological process is denounced by the nature of the bacillus and the type of its media. This infection of the normal animal chemistry is acute if the tissues have an eventual tendency to counteract the bacteria and their toxins. But if, from onset to conclusion, bacterioplasmic ferments and toxalbumins of intense specificity gain the upper hand, the infection produces fulminating and fatal results.

Napoleon spoke the truth when he said: "Life is a fortress; its own means are superior to all the apparatus of your laboratories." When the enemy reaches the tissues, phagocytosis helps to continue natural resistance and to keep within normal limits the evolution of the pathological process. The normally alkaline blood has natural resistance to many bacteria; part of these are destroyed

by the protective alexins which are in solution in the serum, and originate chiefly from leucocytes. The nuclein compounds particularly produced from the lymph-glands have a strong bactericidal action. The phagocytic leucocytes devour part of the organisms destroyed by the alexins, and other bacteria, especially non-pathogenic ones.

Coming to the art of treatment, it must be said that the physician's judgment is his beacon-light in the proper handling of the natural courses and complicating sequelæ of clinical phenomena. Quick action may be urgent on general principles; or the nature of a case slow in its evolution. However, the execution of the right thing at the right moment requires the foundation of a complete diagnosis, and the guidance of the following principles of treatment:

1st. *Dietetic Therapy*—Food is a powerful instrument for good or for evil; it possesses a remarkable number of varied physiological actions, beginning with its introitus and ending with its tissue-building effects and the elimination of its by-products through the different emunctories. The physician should in each case become the master of the proper diet before he thinks of drugs; the kind, amount and frequency of feedings has to be governed by age, sex, habits of luxury or poverty, and of course by the nature of the disease. Nourishment may have to be increased, reduced or withheld according to the urgency of indications. If antiseptically prepared, attractive and pleasing, it agreeably stimulates the palate which, as a faithful janitor, gives a joyous warning to the active digestive organs, and awakes by reflex neurility the circulation, secretions and muscular motions of the alimentary tract. The occasional use of artificial juices and stimulating bitters will secure a better absorption and residual elimination. Of course, skilled nursing is required to promote the patient's comfort and to secure the success of the primary alimentary functions by complete rest or confinement to bed.

2nd. *Analgesic and Hypnotic Therapy*—Rich in the power of healing, the physician must bring the magnetic influence of cheerfulness of manner and hopefulness of mind to bear upon the depressed organism or disintegrating envelope of the soul longing for solace from pain. Although it manifestly helps to determine the pathological condition and affords an invaluable index to the

direction from which scientific relief is to come, pain is troublesome and injurious to the patient's welfare and courageous cheerfulness; it robs him of appetite, rest and sleep, and its depressing influence delays recovery, and must be done away with. In hopeless cases, the anodyne treatment will conduct the poor sufferer in a calm and comfortable manner to a certain death. Our sympathy must not lead us however, to mask the natural progress and prognosis of a disease, for the subsidence of painful symptoms is not the test of a cure. Besides, a good many anodynes have deleterious effects on the alimentary canal, liver and kidneys, by destroying the benefits of any eliminative antiseptic medication.

3rd. *Dynamic or Sthenic Therapy*—Tonic and stimulating agents act directly on the healthy cells of our tissues by modifying their altered functions and guiding the general efforts of the organism towards a return to perfect health. The more or less intact status of the divers body forces is thus favorably modified by this solicitation of actively reconstructive drugs.

4th. *External Antiseptic Therapy*—The patient's room must be free from all furnishings liable to shelter microbes and to prevent a free ingress of oxygen, the best of all antiseptics. Frequent ablutions of the body and care of the patient's hair, clothing and bedding are necessary. Country people seem especially prone to believe that "catching cold" is at the root of all ailments, and that the poor sufferer must be literally buried in his bed, and freed from the contact of water and fresh garments until convalescence. The favorable microbial medium of the mouth has to be cleansed by severe antiseptic measures; for auto-reinfection is common in such diseases as pneumonia, and caries of the teeth is notably frequent in typhoid fever. Dejections should also be disinfected.

5th. *General Internal Antisepsis*—This procedure turns to full advantage the natural power of adaptation possessed by the body against the causes of disease and their prevention; by it a normal return to the functions of digestion, absorption and elimination secures freedom from relapses; and in some instances in which clear etiological and pathological indications cannot be fulfilled from want of means, a great part of the success of our medication is attained by relieving the disturbances of functions superadded to the primary disease. Since hyperkatabolism breeds patholysis, our motto is to enable the vital energy to outlast the morbid process;

therefore, a well organized antiseptis of the emunctories will necessarily promote the action of the different natural provisions for relief, resistance and recovery. This is truly patent in organs permanently deranged by chronic processes, when loss of strength, anemia, neurasthenia, and gradual waste with various degenerations bring on such awful exhaustion of the vital powers.

The general antiseptis of the digestive tract and kidneys acts upon the perverted cells of our internal organs with the very efficacy of an antiseptic drug applied to the cells of the external wounds, by neutralization and elimination of their toxic secretions, either through the skin, intestines or kidneys. This explains why sudorifics, diuretics and purgatives have such a beneficial antiseptic action in all cases of fever, inflammation and suppuration. They carry off the decayed or dead cells, microbes and their toxins, which, if let alone, overcharge the system and obstruct the circulation, giving threats of nephritis to the kidneys. The latter are the chief excretors of bacteria accumulated in the blood, and if their nutrition is disturbed, they will not resist the burden. I am almost convinced that the liver is the real incubator which furnishes to the blood its supply of malarial and other infectious toxins; for I can explain in no other way the often curable influence of a mercurial cathartic which acts chiefly as a powerful antiseptic.

6th. *Specific Antiseptic Therapy*—The largest number of pathological processes have a specific microbe with an acute or chronic pathogenic and non-pathogenic action. Diphtheria, tetanus, typhoid, typhus, meningitis, cholera, yellow-fever, influenza, malaria, whooping cough, urethritis, variola, measles and scarlatina demand the specific agency of an antimicrobial treatment. Chronic processes such as lepra, syphilis, rabies and tuberculosis also command the same specific therapeutic attention. The physical and chemical metabolic disturbances of rheumatic and neurasthenic affections favor microbial complications, while such diseases as pneumonia, dysentery and bronchitis are often aggravated by the presence of several microbes. Antiseptic specifics, many of them yet to be discovered, have a direct action on the divers bacteria and secreted toxins. Mercurial salts in syphilis, and quinin in malaria act as much as a real antiseptic as does antitoxin in diphtheria.

CONCLUSION.—Antiseptic treatment is rapidly becoming the governing agency in the therapy of all disturbance of the vital

elements, whether of putrefactive or micro-organic origin. It has the advantage of attacking the cause itself of the pathological process and of decreasing or destroying its effects. Let the old Hippocratic axiom: "*Tuto, cito et jucunde*" be our motto, a safe medication by pure drugs, an active one by reliable antiseptic specifics and a rapid anodyne, one which will gain for us the praise of our generation.

Some Notes on the Treatment of Phthisis Pulmonalis.*

By E. M. DUPAQUIER, M. D., Professor on Clinical Therapeutics and Tropical Medicine in the New Orleans Polyclinic, &c., New Orleans.

No excuse is ever necessary to write the shortest or least important contribution to the treatment of this disease, as no scourge has ever visited the human race with the unresisting sway that this has. When we think that one-seventh of all the deaths in the world, are attributed to it; and, that the latest census report states that over 150,000 people die of this disease, annually, in the United States alone; when we take this fact in consideration; when we also remember that serum therapy has, as yet, failed entirely in giving us anything like certain results we must go back to the regular armamentarium of technical agents. There is nothing new in the world, and we must use agents used many and many years before. The only thing possible is to attempt, in our mode of administration, to accomplish the most good, or, to reach the purpose in the most satisfactory way to the patient.

Fothergill, in his Handbook of Treatment, the fetich of the old practitioner, says: "Give me the man with knacks or wrinkles, and I will show you the successful man."

Allow me, then, beforehand, to claim nothing new for my method,—only to attempt to describe my way of applying the administration of creosote.

We are taught that this drug, discovered by Reichenbach in 1830, is not only a sedative, but that it is a mixture of phenols, principally of guaiacol and creosol; it has also strong antiseptic properties. It is, besides, an astringent, or, better said, an analgesic. When taken by the mouth, it is chiefly eliminated by the kidneys; still, it is also eliminated by the bronchial mucous membranes, and

* Read at the meeting of the Louisiana State Medical Society, April 28, 1903.

has good expectorant properties. It is in this elimination through the bronchial tubes that it is believed to do such good in phthisis. It is, also, a good tonic; it stimulates the action of the gastric juices, helps appetite, and in this manner increases tissue-building.

Holstein recommends it in habitual constipation, as well as in the colliquative diarrheas, so often met in this disease; it seems to have a strong antiseptic property on the intestine, and to tone up the peristalsis itself. Ever since the beginning of the use of this drug, the medical faculty have differed widely in the mode of its administration; some used it by inhalations, others by the hypodermic method. It has also been given in milk, in Jamaica rum, in whisky, and in capsules. All these methods have their advocates to this very day. Some French author assumes the following corollary regarding its tolerance: "The patient who takes well to the drug, and who seems to stand the treatment properly, is the patient who will get the greatest benefit from it; while, on the other hand, the patient who is nauseated, or seems to revolt against the drug, is the one who almost invariably will have a bad prognosis."

Jacobi calls it the most valuable drug used in the treatment of consumption. Dr. C. Lamplough and Dr. Solis-Cohen advocate small doses at first, gradually increased daily, until 20 or 40 minims, three times daily, are reached. Sommerbrodt, was the one to introduce, in 1887, the method of beginning the treatment with small doses, and gradually increasing to much larger doses, or to the point of tolerance of each individual.

It was to strike a happy medium between this method, and the former use of regularly large doses, that I began keeping note in 1897 on the use of creosote in my work at the Charity Hospital, as well as in my practice. I want to thank Dr. J. F. Points, a former resident student, who helped me to compile some of my records of cases.

My method of administration was to begin with a small dose, 5 drops, specifying always beechwood Creosote, and the make of some reliable house, and to gradually increase one drop more, every week, until twenty drops have been reached, and then gradually diminish down to the original five drops—to resume the same ladder-like procedure over and over again.

If this method had nothing else to recommend it, it undoubtedly has this one important factor, *i. e.*, that at the outset, we begin a plan of fight which means thirty-one weeks of continuous treatment. The other great good accomplished is the happy manner in which the average stomach stands this treatment; such a small dose at first, and so gradually increased, allows the stomach to keep in perfect condition, even helping digestion. A last point of no mean importance is the small cost of this form of procedure; as you have to deal with the poor at most times in this disease, it is a great recommendation that a small 2-oz. bottle will last a good many weeks.

My method does not only consist in this gradual slow increase or decrease, by rotation, but also in the manner of its administration. I advise it in milk to some; to others, where whisky cannot mean any danger, in a little whiskey toddy; but, usually, I much prefer the dropping of the drug in the large end of an empty 5-grain gelatin capsule. I always suggest using a curved dropper, and cause the patient to be careful not to allow any of the drug to overflow, or to get on the side of the capsule, because of the odor and taste which would follow. You can get thirteen drops in a 5-grain capsule, so, when you have to take more than that, you merely use two capsules. We should fill these every day, as they either leak or get soft, if kept longer.

In the compilation of cases I have made, within the last six years, I have used this method in 244 cases, as accurately as I can bring up my notes, and that is bound to be imperfect, because some of the work was done in the Hospital clinic where we would get regular attendance for a few weeks, or a few months, and then the patient would not be seen any more for years; or he would stop coming altogether. We must deduce, also, in many of these latter cases, that they may have died, and been attended at home in the last stages, by some society doctor, or family physician. Still, of these 244 cases treated during six years by this method, 32 died, 62 are about stationary, gaining flesh, a few pounds and then losing them, and though coughing less, are altogether more comfortable, still showing the presence of bacilli tuberculosis in sputum; twenty cases have improved most materially, cases in the first stage and in the beginning of the second stage, who have stopped coughing entirely, whose temperatures have become normal, who have in-

creased in flesh ten to twenty pounds. Naturally, the physical signs still show some dullness, and increased vocal fremitus. Three of these cases are entirely well, one from the first stage, and the other from the second stage. One alone was in the beginning of the third stage (case No. 158), or breaking down stage, with some gurgling and evidences of a small cavity; he is practically well to-day; he has increased 46 pounds in weight, is strong, robust-looking, with no more cough, no night sweats, no fever, and the reports from Dr. Pothier's Charity Hospital laboratory show complete freedom from bacilli. This patient was also able to spend twelve months in the pine belt about Covington.

Creosote is not my only drug in these cases: I always use a mixture of equal parts of cod liver oil, syrup of hypophosphites (plain), and emulsion (thin) of gum Arabic. The use of creosote, in this manner, seems to help the tolerance of the stomach for cod liver oil, and allows the patient to keep up this drug longer than he would otherwise be induced to do so. Very often, during this course of treatment, I abandon the cod liver oil for a simple stomach tonic of nux vomica, gentian, calisaya bark, columba or cinchona, or quassia; this seems to often relieve a tendency to loss of appetite, or a disgust to the method of my administration.

Invariably, you must stop creosote when hemoptysis supervenes, because it seems to have a tendency to increase it. You would expect a different result, as chemists tell us that the drug has astringent properties of marked power. Still, invariably, I did harm when I tried to keep up the drug while patients were spitting blood. When the evening rise of temperature is above 102 or 103, I always substitute guaiacol carbonate for pure creosote until that temperature has been lowered. The primary advantage in this way of using the drug is, first, system. Your patient is taken into your confidence as to what he is to expect; that he has a serious condition he is already aware of; and if you can gain his complete confidence, you have accomplished half of the battle.

Secondly, the increase is so slow and gradual that the stomach nearly always stands it, and at the same time, the organs of elimination are only gradually brought into play, so that they succeed, without discomfort, to entirely eliminate the drug from the body. And, again, after you have explained to your patient thoroughly what you want to accomplish, after you have called him in con-

sultation, as it were, you have an active assistant in that patient. He weighs himself, he attempts to follow your advice, about eating fats and using nourishing diet, about exercise and outdoor life, and when that patient comes back a few weeks later, and he has gained half a pound or one pound, you have a man who will continue a course of treatment for at least thirty-one weeks, and not have the storm-beaten, discouraged being who had visited twenty doctors' offices before coming to you.

If the physical signs justify, by percussion, show him some evident fact of improvement by the thermometer; also if possible, try (of course all within honest truth) to make it appear tangible to him that there is ground to be encouraged, because that is the only way you will get him to give your method or your drug a fair trial.

“Hope springs eternal in the human breast” and, happily, in pulmonary affections, Providence has still more increased the receptiveness of that feeling; still, when we walk through the crowded medical wards of even modern hospitals, and see the pale, the cadaverous and anxious faces turned towards us, with glazed, bright eyes, red, hectic *pommettes*,—the look of rapidly coming dessication, you feel that anything must be tried; that any piece of wreckage is a goal of safety, is a raft of hope.

Naturally, my rapidly-sketched notes barely suggest the lines which I want to specially lay weight upon, and I cannot hope to accomplish more good than to call attention to a method which is not wholly new, but which may not be generally followed. The trend of the discoveries of the age is towards the application of our knowledge and study of the life and habitat of micro-organisms of nearly all diseases, and a serum made from these to be used in a prophylactic manner.

Probably the time is not distant when the hypodermic needle will take the place of the prescription blank. Still, this millenium has not yet been reached, and the dreaded Reaper has kept up his harvest of consumptives through the crowded streets of our modern cities, through the teeming tenement houses which are filled with our sweating classes, just as it used to do in the crowded alleys and streets of ancient Babylon and the far-famed Antioch; and though we are doing our utmost to diminish its field, by teaching hygiene and prevention in place, as well as prevention in person we are not making the strides we should have made in therapeutics.

The family physician, the ever consistent apostle of the Golden Rule, and of true Christian charity, the modern hygienist, will keep up the work, and though he has not yet reached a perfect, absolute serum therapy, or a perfect outdoor pavilion system of isolation, which will forever destroy the insidious little rodlike bacillus of the horrible disease, let him use, in the meanwhile, creosote in such a manner as I have attempted to suggest, and following this plan which is so easy, cheap and convenient, let us have confidence ourselves in our success so as to secure the same confidence from our patients.

One case saved by perseverance is always a victory, the greater victory, because otherwise the doom is inevitable.

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Recent Advances in the Treatment of Diarrhea.*

By R. B. PAINE, M. D., Mandeville, La.

I have selected as the subject for discussion on this occasion "Recent Advances in the Treatment of Diarrhea," and as my remarks are intended to apply particularly to the diarrheas of children, I hope to hear the experience of other members of the profession along that line.

Since the general introduction of antiseptics into medical and surgical practice, the idea has gained a permanent position in the treatment of diarrhea, whatever may be its cause.

The etiology of this expression of disturbance is a very important factor in the outlining of a plan of treatment, hence we can refer briefly to some of its most frequent causes as follows: 1st. The presence of indigestible or undigested substances in the bowels, in which cases it is simply an effort of nature to wash out the offending matter by an unusual amount of secretion from the intestines accompanied by increased peristalsis.

* Read as Chairman of Section in General Medicine, Louisiana State Medical Society meeting, New Orleans, April 28-30, 1903.

2nd. An increase in the amount of biliary secretion, producing increased peristalsis.

3rd. The too free imbibition of water, especially when a change has been made in the quality of drinking water.

4th. The nervous system under the influence of various sudden emotions seems to lose its inhibiting power, the mouths of the intestinal secretory glands are thrown open and one or more watery passages follow.

5th. The nervous irritation so frequently afflicting teething children often vents itself in the form of diarrhea.

6th. The presence of toxin producing bacteria in the contents of the intestinal canal, the irritation produced by the ptomains sometimes causing severe and dangerous symptoms.

In view of the varied causes and the great mortality sometimes accompanying this malady, especially in hot weather, it behooves us to study diligently the best methods of relieving it. In the first three classes mentioned above, if the diarrhea has been sufficient to completely expel the irritating matters, little or nothing may be required in the way of treatment except complete rest for the alimentary tract by the prohibition of all food for a period of twelve hours or longer as found necessary; sterile water to be given in moderation and intestinal antiseptics as mentioned below for a few days, or until normal healthy functioning is fully established.

The emotional form is usually of short duration and slight importance, while that of teething children usually subsides when the offending tooth succeeds in pushing its way through the gum, which can sometimes be accomplished promptly by cutting the gum freely over the presenting point of the tooth and rubbing it entirely out of the way.

If any of the above mentioned forms continue and the cause is not promptly removed a condition of fermentation may take place in the bowel, which furnishes an excellent medium for the growth of bacteria and, if proper treatment be not instituted, the resulting ptomains may prove disastrous.

As to the treatment of severe cases or those in which toxemia is present or imminent, I first clear the alimentary tract by giving either a dose of castor oil or small doses, from 1-10 to 1-4 gr. of calomel every hour till the bowels act thoroughly. This clearing out, which must be thorough, is followed by the administration of

1-10 to 1-4 grain of calomel every four to six hours and intestinal antiseptics, as salol or the sulpho-carbolates, every 3 or 4 hours, according to the requirements of the case, until healthy secretion and normal functioning have been reestablished. When there is pyrexia and dryness of the skin, 1-4 grain doses of powdered ipecac can be advantageously combined with the calomel to promote diaphoresis. In my experience, nearly every case of diarrhea among children will yield to the above treatment, if proper precautions are used in regard to diet and water as previously suggested, a strictly liquid diet and sterile water being necessary for several days in severe cases. My reasons for using the above remedies are as follows: While I believe it to be exceedingly difficult if not altogether unsafe and impossible to render the entire alimentary tract aseptic by the direct effect of medicine *per se*, I do believe that the calomel so stimulates the flow of bile, which is the natural intestinal antiseptic, that its indirect effect is very powerful for good. Salol and the sulpho-carbolates are unquestionably split up into their component parts, and the liberation of the resulting carbolic acid at frequent intervals all along the intestinal canal, certainly has a salutary effect, and the chemical changes so alter the contents of the intestines as to render them a poor medium for the growth of bacteria.

Clinical Report.

Ligation of Canaliculi for Extraction of Cataract Complicated with Dacryocystitis.

By DRs. BRUNS AND ROBIN, New Orleans,

Mrs. J. D., aet. 65, of good general appearance and health, applied to our clinic on April 30, 1901, complaining of eyes troubling her for about a year with matter coming out of them and gradual diminution of vision. We found in each eye a mature senile cataract and chronic dacryo-cystitis and vision reduced to light perception. Thick yellow pus could be pressed out in considerable amount from both tear sacs. Persistent treatment with lachrymal

syringe and probes was carried out, without however, slitting up the canaliculi, until September 6, 1901, with the result that the condition was vastly improved but the secretion of pus had not completely ceased.

As the prospect of an early radical cure of this forbidding complication did not appear bright we proceeded, on September 6, 1901, to follow the suggestion of Prof. Fuchs of Vienna, who practised it successfully in our presence, at his clinic, in 1895. We ligated, with small black silk, the upper and lower canaliculi and cleansed the conjunctival sac in the most thorough manner by irrigation with a 50 per cent. solution of enzymol followed by normal salt solution. We immediately extracted the cataract by the simple method without accident. When bandage was removed two days later, the eye was clean and everything looked well with the exception of a small incarceration of the iris which we decided was best left untouched. The conjunctival sac was carefully irrigated with enzymol followed by normal salt solution, atropin was instilled and bandage reapplied. This practice was followed daily until September 20, fourteen days after operation, the wound being firmly healed and injection subsided, the bandage and washing was discontinued and cage put on. Atropin was instilled daily until October 24, when ligatures around the canaliculi were removed. Upon passage of a probe these were found patulous.

November 15, 1902, L. E. V. with +11s=20/lxx with +16s=sn. No. 3.

January 22, 1902, L. E. V. with +12s=20/xl, with +16s=sn. No. 3. Ordered glasses in reversible frame.

Two considerations have led us to report this case. First to proclaim another triumph for an idea apparently so simple that the genius who conceived it has not made it known outside of his own country.

Second, to correct the impression entertained by Dr. Buller, in a paper entitled "Temporary Ligation of Canaliculi" which appeared in the transactions of the American Ophthalmological Society of 1902. The author in his conclusion is under the impression that the idea is a new one and none of the members taking part in the discussion of his paper, though approving the method, appeared to have had any previous knowledge of the operation.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. E. J. GRANER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING OF APRIL 25, 1903.

DR. MILLER read on

A Case of Utero-Vesico-Vaginal Fistula.

Fistulæ of this type situated at the vaginal vault and involving the rigid tissues of the cervix often present some special features. They may follow sloughing in this region, but the majority of cases are the result of a tear. Such an injury may occur as the result of the application of obstetric forceps before the cervix is sufficiently dilated. The majority of the limited number of cases I have been able to collect followed forceps deliveries. Such a tear is likely to have smooth edges and ought to be easy of coaptation, instead of the rough, uneven, contracted edges, encountered in fistulæ following extensive sloughing. A case of this type recently under observation is of interest because of the unusual size of the opening and the different methods used in closing it. The woman was referred to the gynecological service at the New Orleans Polyclinic by her physician, Dr. W. H. Robin, who had delivered her two months previously with forceps, after she had been seven hours in hard labor. He had been summoned by the midwife when the woman was all but exhausted, the waters drained off, and the vagina hot and dry. She was a primipara, 20 years old, and well developed. Forceps applied and the delivery accomplished with great difficulty. On the following day urine was noticed dribbling from the vagina. The puerperium was otherwise normal. As soon as she was able to attend the clinic she was referred for treatment. Examination revealed a long straight tear of the vaginal septum and anterior cervical lip, extending from the bladder trigone, to a point above the internal os.

The torn edges of the cervix were everted and partially fixed by the surrounding inflammatory tissue. As there was some contraction in the high angle of the tear, it was at first difficult to determine if the urine was not coming through an opening even higher than the cervical tear, but by passing sounds through the bladder rent and carefully searching, it was found to be a wound of single opening. Two months after the confinement, the first operation was performed. No anesthetic was administered during any of the three operations, the patient preferring to experience pain rather than be chloroformed. The first step was the dissection of the bladder loose from the anterior uterine wall to a point above the angle of the tear. The edges of the fistula were then simply denuded and approximated by silkworm gut suture; a method adapted to all fistulæ, whether large or small, when the edges can be brought in contact without causing too much tension. The gaping edges of the torn cervix were also pared and closed by the silkworm gut sutures passed deep into the angle of the tear. Bringing the cervical edges together served to support the upper end of the vesical tear to the extent of removing all lateral tension. Drainage of the bladder was accomplished by a small soft rubber catheter, No. 11, which was kept in place for six days, being removed daily and cleansed. The lower third of the wound failed to unite. Three weeks later a second operation was performed and a different technic adopted. Instead of simply denuding the margins, the method described by C. A. L. Reed was followed. This consists of splitting the margin of the fistula either by means of knife, or scissors curved on the flat. By this means the mucous membrane of the vagina and of the bladder are separated into two flaps; those in the bladder can be folded inward, while those within the vagina can be folded outward and similarly approximated. A curved needle armed with silkworm gut (Reed uses a special, curved needle mounted on a handle) was inserted beneath the vaginal mucous membrane, carried deeply into the cellular layer and brought out just beneath the vaginal mucosa. Other sutures were introduced about a quarter of an inch apart and tied. By such a procedure the area of approximation surface is greatly increased and if failure occurs, little tissue has been sacrificed, while by the old method of denudation you may remove larger areas of healthy tissue and a failure would mean a larger opening than primarily existed.

After the second operation a small fistula remained in the extreme lower end of the tear. This was closed one month later by de-nuding and placing two sutures. The sutures were removed in each instance on the eighth day. Drainage was employed after each operation, the length of time varying from six to three days. As a working rule, it may be stated that the larger the fistula the longer the catheter should be retained. The catheter should be retained until the operator feels that the woman can void her urine without breaking down the healing wound. If the wound looks healthy and firm and the opening is small it may be removed as early as the third day.

A soft gauze pack was kept in the vagina and removed daily. This is of special importance in large fistulæ because of the support given the healing wall. It is not good practice to employ frequent douching of the vagina. The wound may be cleansed by boracic acid or bicarbonate of soda solutions and the pack reapplied after thoroughly drying the parts. Wounds following plastic operations heal more readily when kept dry and too much water keeps the membranes soggy. After the sixth day the douching may be employed regularly.

DR. MILLER also presented the report of

A Case of Cancer of the Uterus Presenting Some Points of Interest.

A case showing the possibility of injuring internal pelvic organs by external violence and the promptness with which malignant disease often follows traumatism, or chronic inflammation, is well exemplified in the history of a patient observed during the past year. She first presented in July, 1901, a case of pelvic inflammation, which at the time was considered quite unique—if not impossible. She was a woman of thirty-seven years, good parentage, married, the mother of six children (two of whom were dead) and inclined to be stout. While playing on the bed with one of the children, the little fellow accidentally kicked her very hard in the left iliac region. She experienced severe pain for a few minutes, and was inclined to be nauseated. She felt better later, and dressed for dinner, but was seized about an hour afterwards with very severe, griping pains in the same region. After lying down she was somewhat relieved but spent a restless night. Dr. W. H.

Watkins, her family physician, was summoned the following evening. He recognized the condition as a probable pelvic peritonitis and placed her under treatment. As she did not progress satisfactorily, he asked me to see her, two days later, stating that the condition had become surgical and might necessitate her removal to a sanitarium. A vaginal examination revealed a fluctuating mass, which involved the left broad ligament and was pointing just behind the cervix. She refused to have an anesthetic administered, stating that she could bear the pain and insisted that it be opened promptly. The usual incision was made, two fingers were passed into the pus sac and all the pockets drained. After irrigation, a rubber tube was inserted and the vagina packed. She made an uneventful recovery. The question arises as to whether it was possible to produce this injury by violence applied over the abdomen or whether infection by the usual route was to blame. The conclusion reached was, that the blow caused hemorrhage into the broad ligament structures which finally became infected. This was based strongly upon the entire absence from her history of previous menstrual irregularities, abortions, or even a leucorrhœa which might have had its origin in a specific infection. Her abdominal walls were very thick and firm and vaginal examination showed that the pelvic organs were surrounded by fat deposits and almost continuous with the parietes. It might occur to some that in such a condition the fat deposits would rather act as protection to the deep organs, but frequent examination of stout women suggests that such an accident is possible, by force being directly transmitted, as in injuries to long bones at a point distant from the blow.

She regained her health and suffered no inconvenience except a little more lassitude during menstruation until January, 1902, when her menses became very profuse. Metrorrhagia became pronounced and Dr. Watkins was again consulted.

Examinations revealed a malignant growth of the cervix and cicatrix. The uterus was fixed, owing to the adhesions following the abscess previously mentioned, and the cervix together with the scar just behind it where the abscess had been drained were generally involved in the carcinomatous changes.

As the growth was too far advanced to permit of radical operation, high amputation of the cervix, curettage and the application

of chloride of zinc solution (50%) was the treatment. At the time of operation the disease was found to have involved the left broad ligament, the site of the former abscess.

This palliative treatment was unusually successful. The hemorrhage stopped, and no discharge was noticed during the balance of her life. The disease seemed to have a predilection for the left broad ligament. The mass became larger and produced frightful pains in the left leg by its pressure. Some peritonitis about the rectum in the cul-de-sac occurred, and caused pronounced tenesmus. Later on the rectum became involved and the cause of death was perforation of the bowel. She was seized with violent pains in the lower abdomen, and profound shock rapidly supervened. It was thought that internal hemorrhage might have been the cause of death but the embalmer states that no blood was found in the abdomen.

The abdomen was distended very much before death and from his statements I consider the cause of death, perforation due to bowel involvement. The case was one of unusual malignancy.

It would be impossible to determine the exact duration of the malignant disease. No trace of it was discernable by the eye when she was discharged in September, 1901. When examined early in January, 1902, it was far advanced. The influence of trauma in exciting tumor growth is well illustrated here. While traumatism and inflammation alone can not produce a tumor, they can act as an exciting cause in stimulating a pre-existing matrix of embryonic tissue into active changes, or in furnishing by remote effects on the tissues, a post natal matrix. Inflammation always hastens tumor growth, especially malignant growths. Embryonic epithelial cells have an ameboid movement by virtue of which they can rapidly penetrate inflamed structures. The abundant connective and scar tissues of the broad ligament furnished a rich field for such an ameboid movement, and explains the very rapid process of infiltration that followed.

DISCUSSION.

DR. MICHINARD thought that Dr. Miller had dealt with the subject in a very creditable manner, but in the treatment of vesico-vaginal fistula the essayist had failed to mention how extremely simple a matter it was to utilize the Reed's flap operation in

this class of cases. He had found that the vagina and bladder could be separated with great ease. The employment of fine silk had proved in his hands far superior to that of silkworm gut. In some cases, after approximating the membrane of the bladder with fine silk he had found it not necessary to utilize the vaginal mucous membrane, this being especially true in old and large scar cases. The fine silk could be left in the tissues without any fear of the formation of stone in the bladder. The doctor had found that the great tendency of many of the operators in this line of work had been to neglect the important feature of the after treatment by not insisting upon a frequent evacuation of the bladder for fully a month after an apparent cure had been obtained. By this precaution, the bladder would not become over-distended and bring to bear unnecessary strain upon the newly formed adhesions. Dr. Michinard believed that Dr. Miller was correct in ascribing traumatism as the underlying cause of the malignancy in his case.

DR. STORCK said that he had seen carcinoma in old scars, the sites of former gastric ulcers. In fact, cicatricial tissue was quite prone to undergo malignant change.

DR. LAZARD related a case of an Italian recently observed in Dr. Matas' clinic at the Charity Hospital. The case was that of a young man who was seated at a table with friends, when one of his confrères, upon entering the room, in a spirit of fun and as a form of greeting, kicked him on the leg, just above the ankle. At the time at which the trauma was received little or no attention was paid to the incident, but in one week after the kick an abscess developed over the seat of trauma, which was poulticed and given ordinary home treatment. Five weeks after the appearance of the abscess, the case was observed in the ward and to all external appearances was a typical carbuncle. The patient was given chloroform and upon an exploration the condition proved to be that of a periosteal sarcoma, which most probably was caused by the blow which had fractured the fibula.

DR. MILLER, in closing the discussion, thought that it was problematic for so slight a blow as received in his case to produce the hemorrhage that did occur. It was possible that it was a mere coincidence. The thorough preparation of the patient prior to operation in the fistula work was most important and the profession owed to Dr. Emmett the credit for having insisted upon this point,

he believing that the preparation was of as much importance as the sutures. The doctor had never used silk, but had employed cat-gut first, then silkworm gut.

MEDICAL NEWS.

DR. CALLAN, under this head, wished to make a few remarks as to the outlook for a good time in the approaching Convention. He thought that we would have a grand medical revival, the money was on hand and that numerous forms of entertainment had been planned and he believed that all of the efforts would end in giving the visiting physicians a royal welcome. He spoke of a man who had been sent down by the *Journal of the A. M. A.* for the purpose of enlisting new members and who, in his rounds, had created an impression among certain members that they would not be permitted to attend the meetings of the American Medical Association unless they were members. This impression was entirely erroneous and he wished to urge upon the members present that they will all be expected to attend the meetings of the A. M. A., whether they be members or not.

REPORTS OF CASES.

DR. DABNEY wished to mention a case in which a distinct blow was given to the idea of *maternal impression*. His case was that of an extremely nervous lady of marked neurotic temperament who was married eight years before the birth of the first child. There being no children, she was very fond of pets, one of her favorites being a parrot, who was taught tricks, taken in bed and made a great pet of. When the baby was born, the first question asked by the mother to Dr. Dabney was as to the shape of the baby's nose, she having been constantly under the impression that the baby's nose would be shaped like that of the parrot. The father also was very anxious as to the child's hands, he being under the impression that the baby's right hand would be deformed, as his own was congenitally so deformed. The baby's hands and nose were perfectly formed, but it needed no circumcision, as the prepuce was absent, and he believed this case showed what little faith could be placed in maternal impressions.

DR. DABNEY also wished to relate *five cases in one family* which

had been *giving all the symptoms of cholera from eating matzos*. The children were from fifteen months up to fourteen years and each one presented a violent form of auto-intoxication. He felt confident that the matzos were the only possible cause of trouble in these cases, but still he was at a loss to know how a little flour mixed with water and containing no salt could produce so violent and dangerous symptoms as were manifested in the five cases in this family.

DR. SEXTON related a case of *pneumonia in a very old gentleman* who had made a happy recovery, notwithstanding the patient was just recovering from an attack of grippe, had a heart murmur and was very advanced in years. His case was that of a physician who was traveling through Mexico and, naturally, when passing through the barren sections of the country, he inhaled large quantities of the alkali dust, from which, Dr. Sexton believed, came the pneumonia. The man was completely prostrated on reaching the hotel. There was a large area of consolidation in the right lung, temperature was 104°, pulse 140, respiration 52. The case was transferred to the Sanitarium, where the following line of treatment was prescribed: Calomel and soda was prescribed as a purgative, strychnin, 1-30 of a grain every four hours; for the irritating cough, the throat was sprayed and for the great pain in the chest antiphlogistin was applied every 24 or 48 hours. Eggnog, milk punches, Ducro's Elixir and meat broths were the form of nourishment given. After three weeks the case was discharged cured. Dr. Sexton reported the case mainly owing to the extreme age of the patient, the presence of the heart murmur and the little treatment employed other than supportive.

DR. A. C. KING related a case of *hemorrhage from the vestibule* produced by an unusual cause. He was sent for by a lady who told him that she had been bleeding quite freely and showed the bedclothing which was saturated with blood as an evidence. The lady stated that while dressing something had bitten her near the parts, when she suddenly grabbed her dress and attempted to make pressure against the spot. Upon examination the doctor found a small ruptured vein near the meatus, which undoubtedly had been caused by the jamming of a sharp point of the stiffly-starched garment worn next to the skin against the mucous membrane. He reported the case owing to the unusual cause of the hemorrhage.

DR. GRANER spoke of a case of *obstruction of the bowels due to fecal impaction* in which having failed, after using the usual remedies, he administered hypodermic of 1-50 of a grain of atropin as a last resort before surgical interference. Twelve hours after hypodermic the bowels acted.

DR. SEXTON wished to know from Dr. Graner did he attribute the bowel movement to the other remedies prescribed or to the relaxation of the bowels. Dr. Graner believed that the atropin was the cause of relief.

DR. STORCK stated that he had seen 1-60 of a grain of atropin give relief in this class of cases.

DR. E. J. HUHNER related a case of *a colored male child, two days old, in which both legs were hyperextended* to such a degree that the toes almost touched the abdomen. The bones were intact and normal. Under massage, manipulation and forcible flexion, the trouble was corrected permanently. As labor was normal, the causation was not easily determined. The doctor related another case that he had recently observed in his practice, that of a *spontaneous cure of hip joint disease*. The case was that of a white male ten and a quarter years old. When eleven days old swelling was observed in right knee; this shortly disappeared, but was followed by swelling and pain in the right hip. Case at that time was diagnosed as rheumatism by the attending physician. Subsequently abscess developed, pointed, ruptured and healed. When he saw the case the leg was shortened about six inches and the head of the femur was missing. There was some limitation of motion. Photographs of this case were shown.

DR. LANDAUER had recently seen a case of *exophthalmic goiter* of two and a half years' duration. The pulse was 140 and small volume. The patient was very nervous. The tumor was marked and had resisted repeated trials of various forms of treatment. Digitalis, with local application of the ointment of mercury was a portion of Dr. Landauer's treatment. Saturated solution of iodide of potassium was also used. Ten days or two weeks after the application of the ointment the goiter ruptured and left a suppurating cavity, which in three months had practically healed, leaving a very small tumor about the size of end of thumb; exophthalmus has nearly gone and pulse is generally improved.

DR. LAZARD wished to mention the frequent *mistakes made in*

diagnosing dermoid cysts of the coccygeal region. His experience had been that disease was very rarely met with and seldom properly diagnosed. He had recently seen the case of an overseer who had almost lived on horseback and always knew he had a swelling in the region named. Seven years ago he began having trouble, with the cyst. It ruptured, discharged its contents and was diagnosed as fistula-in-ano. Incision was made in the region; this closed and he thought himself cured. Some years later the trouble returned and upon visiting another physician he was told that the operation was not properly performed. This last physician called it fistula-in-ano, however.

The doctor called attention of the Society to the great value of proper history-taking. He ascertained a full history from the man, and made the diagnosis from it. Inserting a probe, manipulating it, its withdrawal brought hair. A mere incision was always followed by failure; but when properly excised a good result will be the rule.

DR. CLARK said that the coccygeal region was the most frequent field in which dermoid cysts were encountered and Dr. Lazard, he thought, was mistaken in asserting that they were rarely observed in this region. He had heard from Dr. Matas' lectures to his surgical class special emphasis placed upon this very point, that whenever a suppurating sinus was found in the coccygeal region always first eliminate the possibility of its being a dermoid cyst.

Dr. LeBeuf mentioned that he had reported five or six cases of dermoid cyst occurring in the coccygeal region.

MEETING, MAY 23, 1903.

DR. GRANER in the chair.

DR. JOACHIM reported *a case of Cerebral Abscess of the Brain of Otitic Origin*, with exhibition of specimen.

In bringing the subject of cerebral abscess before a body mainly composed of general practitioners, Dr. Joachim thought it necessary to give a general aspect of the present state of our knowledge of this subject. He stated that one-third of all brain abscesses were of otitic origin. In 8 to 12 per cent. they were multiple. Both cerebral and cerebellar abscesses were somewhat more frequent on the right than on the left side. The cerebral abscesses were far more fre-

quent than the cerebellar. The statistics cited were those of Koerner's classic work.

Dr. Joachim gave a general outline of the symptoms, course and diagnosis of these cases and called especial attention to the almost uniform fatal result in cases not operated upon. Exitus lethalis was induced by rupture into a ventricle, meningitis or edema due to pressure.

Referring to the case under observation, he stated that the first time he had seen the patient was upon the operating table. The history furnished evidence of a profuse discharge from the left ear, of the existence of convulsions for nine months previous, of a seriously disturbed sensorium, a nearly normal temperature with a rapidly increasing pulse rate and respiration within the last few days. Tumefaction existed behind the ear with a fistula. One inch upward and backward from the upper end of the auricle existed a large fluctuating swelling, round and two inches in diameter. He at once proceeded to lay open the mastoid in the usual way. The necrotic and purulent permeation of the mastoid region necessitated the entire removal thereof. The excision was extended upward and a large necrotic defect in the bone, corresponding to the fluctuating mass was uncovered, exposing the dura mater, which was covered with thick and very vascular granulations. The oozing from the entire field of the operation was profuse and with difficulty controlled, telling severely on the already severe condition of the patient, who had to be stimulated with strychnin and digitalis injections. The bone covering of the brain was removed through the entire extent of the infected area and two exploratory punctures were made into the temporal lobe near its base, at a point where it superimposes the attic of the middle ear. No pus could be found. The patient's condition prohibited further procedures and he was returned to the ward. He died the following morning, 24 hours after the operation. The autopsy showed the existence of a brain abscess at a point where it was looked for in the temporal lobe, about the size of a pecan. The demonstrated petrous portion of the temporal bone shows in an exquisite manner the progressive upward tendency of the disease, showing pus in the middle ear and attic, with several perforations through the attic and through the adhering dura mater, communicating with the abscess cavity. Dr. Joachim brought this case

before the Society mainly to show the possible results of neglected middle ear disease and the typical way in which the cerebral brain abscess is produced.

DISCUSSION.

DR. DEPOORTER mentioned that he had recently observed a case at the Eye, Ear, Nose and Throat Hospital of a cerebellar abscess that had both subnormal temperature and pulse, just the opposite to that of Dr. Joachim's case.

DR. DUPUY also referred to this case of cerebellar abscess and remarked upon the subnormal temperature and pulse. The doctor suggested the possibility of the subnormal temperature and pulse being an aid in making a differential diagnosis between a cerebellar and a cerebral abscess.

DR. JOACHIM, in closing the discussion, said that he did not believe that the temperature and pulse in this class of cases could be relied upon to differentiate between the cerebral and the cerebellar infections. The temperature and pulse were influenced by the intra-cranial pressure and not by the involvement of a special region.

DR. MAINEGRA read a paper on

A Case of Scalp Wound.

Frank W., aged 8 years, fell through a skylight from the second story gallery of his residence, receiving a very severe cut and laceration of the scalp, miraculously escaping other serious injury. The laceration was quite extensive. It covered a space involving the two parietal and the occipital bone, forming a wound in the shape of a large horseshoe. The scalp was completely detached from above, hanging posteriorly over the neck. The occipital bone was denuded of its periosteum for a space of two by three inches. A couple of bleeding vessels were twisted and the hemorrhage, which had been quite extensive, was brought under control. The wound was thoroughly washed with bichloride solution, 1 to 2,000, and this was followed by the application of hydrogen peroxide, making, as it were, disinfection doubly sure.

The detached flap was carefully replaced and all the parts involved were shaven clean. A great many stitches were required to

bring and maintain the original scalp together. Iodoform gauze was applied over the wound and this covered with absorbent cotton and held in position by the regulation bandage. In dressing the wound a small space was left on both sides for drainage. Events proved that it was a good precaution, as the wound did not heal by adhesion.

I was apprehensive for some time about the condition of the bone, which was denuded of periosteum. In using the probe over that part of the bone, the characteristic dry sound was obtainable for a long period after the accident occurred.

Granulations formed in due time and the patient was discharged cured two months after receiving the injury.

No discussion.

DR. E. J. HUHNER read a paper on

Treatment of Congenital Dislocation of the Hip.

Of all the various methods of treatment of congenital hip displacement none have been entirely satisfactory and the innumerable mechanical, manipulative and operative procedures which are recommended attest the difficulties in the way of a cure. Mechanical treatment is not productive of very good results, although Pravaz, Sr., Pravaz, Jr., Adams and Guerin have reported cases which were benefitted by extension, but the ultimate result is doubtful. Bradford and Buckminster Brown report perfect cures by employing weight and pulley traction upon the limb for at least a year. Then some form of extension apparatus was applied. T. Halstead Myers reports a relapse in Brown's case. Schede has treated cases in which no secondary changes have been caused by walking by means of an apparatus which exerts traction, slight abduction and lateral pressure on the trochanter. This is used during the day and at night extension is applied. Schede wrote Myers that he had positively cured four cases by this method. Volkman and Tubby claimed to have obtained good results by recumbency and long-continued extension.

Operative Treatment.—Coolidge, Broadhurst, Bouvier, Barwell and others did a subcutaneous tenotomy and reported improvement. Margary, Vincent, Ogston, Hueter and Konig recommended resection of the femoral head and by periosteal flaps causing bony

union of the femur and os innominatum. De Paoli, after widening the acetabulum and reducing the dislocation nailed the head in place. Resection of the head of the femur has been done very often, but the results are unsatisfactory. Hoffa opens the joint by Langenbeck's method, removes the capsule and ligamentum teres, enlarges the acetabulum by means of a scoop, manually reduces the dislocation and separates the muscles from the great trochanter subperiosteally. The thigh is then abducted, extended, rotated inward and fixed in plaster of Paris. In seven cases reported, the results from Hoffa's operation were excellent; in several, movement was perfect. In children under five years of age, it is not always necessary to deepen the acetabulum. Kirmisson recommended subtrochanteric osteotomy. Lannelongue injected a 10% solution of zinc chloride for the purpose of exciting bony growth where the femoral head rests in recumbency. Jewell reports three cases treated by this method, two of which (one a bilateral dislocation) were cured. Coudray combined chloride of zinc injections, Paci's method of forcible reduction and continuous extension for five months, and reports a cure.

Lorenz made an anterior incision between the tensor vaginae femoris and sartorius, scooped out the acetabulum, trimmed the head of the femur, when necessary, reduced the dislocation by powerful traction, at times by mechanical means, slightly abducted the thigh and applied a plaster dressing. The tendons of the hamstring muscles were tenotomized in rebellious cases.

Forcible reduction was first suggested by Paci. He did not claim to replace the head of the bone in the acetabulum, but sought to place it close to it, with the intention of forming a new joint. This method seemed commendable to Lorenz who, in 1895, determined to employ it, with certain modifications, in place of his cutting operation. His success is evident when we learn that in one year he treated 13 cases with perfect results. Paci flexed the thigh, afterwards abducting it slightly (claiming that anterior displacement might be caused by too much abduction), then strong outward rotation and full extension. After applying plaster of Paris, continuous extension was maintained for three months. The author of this operation was successful in securing almost perfect results in fifteen cases and Réard in three out of five cases. Post, of Boston, also reported cures. Schaffer, in 1898, stated that

Sands, twenty years before, unsuccessfully attempted to forcibly reduce a congenital hip displacement in a child about five years of age.

The method par excellence for the treatment of congenital hip displacement is that of Paci, as modified by Lorenz. This operation is especially applicable in children under eight years of age, after which time failure is more common than success. It is done in the following manner:

1st. *Hyperabduction*.—The pelvis is fixed, the limb forcibly abducted and the adductor muscles separated from their attachments by manual pressure.

2nd. *Hyperflexion*.—With the patient prone, the extremity is slowly flexed until the toes almost touch the ear.

3rd. *Hyperextension*.—With the patient lying on opposite side, the limb is forcibly extended while the knee is flexed.

4th. *Traction*.—Patient prone. Forcible traction is made.

5th. *Reduction*.—A triangular block of wood is placed beneath the trochanter; the thigh is forcibly abducted, to enlarge the anterior part of the capsule, then the entire extremity is rotated inwards.

With the thigh hyperabducted and the knees flexed, a plaster dressing is applied.

CONCLUSIONS.—1. Extension in very young children is often effective; in older patients very seldom satisfactory.

2. Resection of the femoral head is inadvisable, as it often results in a stiff joint, or shortening, from removal of part of the epiphysis in a growing child. In bilateral displacement the results are often bad; in unilateral cases unsatisfactory and in neither do the results compare with the results from traction methods. Resection is only justifiable when osteitis is present.

3. Tenotomy is generally unsatisfactory.

4. Hoffa's operation is too severe, the shock is great, and it is equivalent to a hip amputation.

5. Lorenz's open method is less severe and is indicated when the bloodless operation has failed.

6. The dangers following these operations are relapse, ankylosis, adduction and flexion.

7. Cutting operations are not justifiable, *a priori*, because of

their mortalities; when other means, with practically no mortality, may accomplish more.

8. When the false joint is very firm, Kirrison's subtrochanteric osteotomy would be rational treatment.

9. Forcible reduction is unquestionably the best method of treatment. The mortality is slight; the consent of the parents is readily obtained; the period over which treatment extends is as short, if not shorter, than that required by other methods; if failure results, recourse can still be had to the open operation and practically no harm has been done the patient.

(1.) A. G., white male, aged 19 months. I first saw him February 10, 1903. There was a congenital displacement of the right hip. February 11, forcible reduction by the so-called Lorenz method effected a replacement. May 12, 1903, the femoral head was in its normal position.

(2.) G. W., colored male, aet. 14, came to my office December 21, 1902, suffering from congenital displacement of the right hip. December 27, reduction effected by force but four days later relapse occurred; January 3, 1903, I again reduced the displacement by Lorenz method and again, January 10, it relapsed. January 12, performed Lorenz open operation. May 2, the head of the femur was in its normal position.

(3.) C. W., white male, aged 12, seen February 13, 1903. Had a congenital displacement of the right hip. The head of the femur was immovably fixed to the acetabulum. February 18, subtrochanteric osteotomy performed and March 4, a brace. He is now, May 20, enabled to walk fairly well and much better than he could before operation.

No discussion.

REPORTS OF CASES.

DR. DABNEY spoke of a case of malignant pustule in a child of 14 months that he had recently seen in consultation. At the time that he saw the case he remarked that charbon would shortly be seen reported from some of the country parishes which, as predicted, came to pass. The child's father was a dealer in hides, necessarily handling material from which he could readily infect his home. The doctor advised the hypodermic injection of carbolic acid and after two days the case was better, but shortly had a relapse and died.

DR. CLARK asked Dr. Dabney how much carbolic acid had been given hypodermically to this child and in what strength.

DR. DABNEY replied that two or three drops could be injected at a time and repeated several times a day. The doctor stated that he had injected fifteen drops of the pure acid in the charbonous tissues with perfect safety in the case of an adult. The danger from systemic infection is very little, owing to the coagulation of the albuminous serum of the disease and the sloughing.

DR. FEINGOLD wished to mention to the Society *a certain form of tonsillitis*, a few cases of which he happened to have under treatment. At first sight they would suggest the follicular or lacunar variety, with the exception that there was no redness. The disease was produced by the *leptothrix buccalis* and goes by the name of *myocosis pharyngis*. Of special interest are the cases in which the affection also spreads to the lingual tonsil. No temperature occurred in this class of cases and one would at first promise an immediate cure under ordinary treatment of gargle, etc., but such would not be the case, since these cases pursue a very obstinate course, and nothing short of excision, cauterization with the galvano-cautery, carbolic acid, chromic acid or nitrate of silver will cure this parasite.

DR. POTHIER related to the Society *a case of priapism* which had been related to him by one of his medical confrères. The case occurred in a colored male 38 or 40 years of age, who was in perfect health prior to the occurrence. On April 10, without any exciting cause, an erection occurred which resisted all form of treatment, such as cold, hot baths, bromide and chloral and chloroform narcosis. A priapism for 25 days had existed and is still in progress.

DR. JOACHIM demonstrated *a papilloma of the larynx* obtained from a boy six years old the same day. The specimen was of typical papillomatous appearance, the size of a cherry, quite large enough to obstruct a puerile larynx. The boy was voiceless, had a stridor in breathing and suffered from severe dyspnea at night. It was removed by laryngotomy *in toto*. Besides the main mass of growth, a papillomatous excrescence existed over the entire interior of the larynx. During the operation a disagreeable incident occurred by sudden suspension of the respiration, while the pulse kept in good condition. It took fifteen minutes artificial respiration before

natural breathing returned. The doctor attributed this to the administration of a sixth of a grain of morphin previous to the narcosis, which seemed to act with unusual vigor. There was no obstruction to breathing from aspiration of blood, as Rose's position was maintained. The operation was finished without difficulty and without anesthetic after the respiration had become re-established. Recourse was had to laryngotomy at once, for the reason of previous experiences which compelled laryngotomy after persistent removal per vias naturales and because the little boy from Texas did not have the time to undergo a prolonged course of training to submit to the intra-laryngeal removal. In a previous case, the well known tendency to recurrence in these cases seemed to have been overcome by the topical application of absolute alcohol from below through the tracheal opening and from above. It may, however, have been due to a spontaneous recovery.

Commencement Exercises of New Orleans Sanitarium and Training School.

The commencement exercises of the New Orleans Sanitarium and Training School for Nurses were held at the New Orleans Sanitarium on June 10 at 8 P. M. The ceremonies were informal, as only the Board of Directors, the superintendent and the senior class were present. After an address to the graduates, the president, Dr. Charles Chassaignac, awarded diplomas to the following:

Miss Marguerite E. Fischer of New Orleans, Miss Maggie H. Hayes of Lake Charles, Miss Ella N. Milton of Baton Rouge. The graduates were complimented for the good practical work and the creditable manner in which they passed their examinations.

The graduates were each presented with the pin of the school as a souvenir from the institution.

The New Orleans Training School for Nurses, which is the oldest established in the city, has constantly raised its standard, and its course now extends over three years, and is a graded one. When the new sanitarium is finished, giving a greater capacity, the staff of nurses which is now nineteen strong, will have to be increased.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Aftermath.

When, in our last number, we published a résumé of the meeting of the American Medical Association held here in May and noticed a few highly complimentary remarks culled from the medical press, we thought that the "incident was closed," as the diplomats say.

We have seen since then a scurrilous article in a monthly publication which forms the single exception to the expressions of appreciation and good-will that have poured in from all parts of the country. The article not only calls New Orleans inhospitable, but accuses the Committee of Arrangements of combining with the hotel and boarding-house keepers to fleece the visitors.

At first, we had decided to ignore the article, considering the source, and deeming it more dignified to do so. However, a query, received from an esteemed subscriber, shows that a different view can be entertained. The letter enclosed the "Welcome" editorial from our May number and the following article from the June number of *American Surgery and Gynecology*, of St. Louis:

New Orleans "Inhospitability."—"Much has been said and written of 'Southern hospitality.' It has been deserved—outside of New Orleans. If the American Medical Association ever goes to New Orleans again it will be after those are dead who attended the 1903 meeting; for from the time one's umbrella was slipped from his grip at Union Station in order that ten cents more might be charged for an hour's storage until the last hotel bill was paid, it was a case of 'skin the visitor,' and he was 'skinned good and hard,' as a Texas man expressed it. The worst thing about it, too was that the general opinion is that the Committee of Arrangements was *particeps criminis*. The complaint was general. People charged \$1.00 to \$3.00 a night at boarding houses where the

regular rate for board and lodging was only \$6.00 to \$10.00 a week soon found they could secure equally good lodging at some nearby place, not 'on the list,' at half the price or less. Some submitted; more changed regardless of the 'Committee;' practically all grumbled. At best it was a dirty deal all around, whether the Committee was in it or not. On the whole New Orleans has suffered beyond measure by the adoption of 'the Yankee plan' in the matter of caring for her visitors."

The letter is as follows:

"JEANERETTE, LA., JUNE 18TH, 1903.

"DEAR DOCTORS—Which is true? If the *St. Louis Journal* is correct in its accusations, don't you think it is about time to quit boasting about the great public spirit of New Orleans, with its charity and hospitality?

"If the accusations are false don't you think its is 'up to you' the medical mouthpiece of N. O. and La., to speak out?

"Yours Truly,

"J. G. BOUVIER, M. D."

We are perfectly willing to speak out the moment any one else thinks it worth while and for the benefit of those who did not attend the meeting. To those who attended nothing need be said. To those who did not we *only* wish to say that the article which inspired our correspondent's question is a libel upon New Orleans and its medical profession, the Arrangements Committee of the A. M. A., in particular. We might give vent to many louder and angrier but less dignified expressions—and perhaps be excused. More important is it to prove our statement. Here are a few of our witnesses:

The Journal of the American Medical Association itself says on May 16: "The New Orleans Arrangements were almost perfect, the general hospitality and feeling was most admirable, and the social functions passed off with delight to all."

The Medical News in the course of a lengthy complimentary article has this: "The cordial hosts of the Association can take not a little of the credit for the success of the meeting to themselves. The representatives of the American Medical Profession have learned that the phrase 'Southern Hospitality' is no empty name and that even in the midst of the business bustle of the New South there is a spirit of welcome characteristic of the Southern gentlemen, of whom the country has long been proud."

The New York Medical Journal of May 16 puts it this way: "It was felt that the hospitality of the great Crescent City would

be graceful as well as bountiful, and so it was. Every visitor who took part in the meeting left New Orleans, we feel confident, with regret that it was over."

The Cincinnati Lancet-Clinic of May 16: "The medical profession of New Orleans embraces men of the very finest and highest type to be found in any city. Their hospitality is lavish and generous to an extreme. The people, and this includes the motormen and conductors on the street railways, have the qualification of quiet politeness to every one."

The *Medical Bulletin* of Philadelphia for June includes the following in its article: "The guests were received in the freest spirit of Southern hospitality. The Committee of Arrangements, under the efficient direction of Dr. Isadore Dyer, had performed their important task with admirable results. Ample accommodations were provided for all the members."

Now comes the *Memphis Medical Monthly* for June: "New Orleans is now wearing a wreath of laurels, for she has most creditably passed through the experience of entertaining one of the largest meetings of the A. M. A. known to the history of that organization. Besides amply providing for the accommodation of the scientific work of the meeting, the medical profession and the citizens of New Orleans supplied entertainments on a scale so magnificent as to excite universal comment and give rise to unanimous praise."

The *Detroit Medical Journal* for June tells its readers: "The week so cool in the North was delightful in the far South, the arrangements excellent."

Listen to the *Medical Herald* of St. Joseph, Missouri, in its June issue: "The welcome given us was characteristic of the South, it was so genuinely cordial and so solicitous for our comfort that we feel deeply appreciative. The hotels were over crowded but we heard of none who was not well cared for."

The *Pacific Medical Journal*, of San Francisco, also speaks out: "The arrangements were well carried out, and the charming hospitality of our Southern neighbors was all that could be desired."

Iowa says through its *Medical Journal*: "Many men who have attended almost every meeting of the A. M. A. unhesitatingly say that this was the best and greatest meeting ever held by the Association."

We have no space for further testimony, which could be furnished in large quantity, but we consider that both the standing and the number of those from whom we have quoted at random are

sufficient for any impartial jury to decide our case proven. Our evidence, we might add, has been derived from among those sources which have been governed by the instinct upon which rests the "Principles of Ethics of the American Medical Association," namely, the instinct of gentle breeding.

Incorporation of the Louisiana State Medical Society.

Pursuant to the plan of reorganization of the Louisiana State Medical Society, on June 10, 1903, an act of incorporation was duly notarialized and the Charter and Regulations promulgated.

Aside from the pure matter of stability which carries with this procedure, the medical profession of the State now enjoys an appearance of power, hitherto only dreamed of. The future promises a prompt response in the organization and affiliation of local parish societies, in turn enjoying a broader privilege of membership in the State body.

The objects as outlined in the Charter are both broad and strong:

"To federate and bring into one compact organization the entire medical profession of the State of Louisiana * * *, with a view to the extension of medical knowledge, to the advancement of medical science, to the elevation of the standard of medical education, and to the enforcement of just medical laws; to the promotion of friendly intercourse among physicians, and *to the guarding and fostering their material interests*, and to the enlightenment and direction of public opinion in regard to the great problems of State Medicine; so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in the prolonging and adding comfort to life."

To further those ends, the legal rights of corporation are allowed and from now on the Louisiana State Medical Society has a status in fact and in law.

New Orleans' Street Cleaning Department.

Considerable agitation recently arose regarding the street cleaning of New Orleans. Our very useful City Board of Health discovered that the streets were not quite proper, that the gutters

were not particularly attractive to strangers nor delectable to the people of New Orleans itself. Garbage cans had accumulated unduly and the odoriferous contents were unnecessarily sprinkled along the public thoroughfares, and at irregular hours. By way of stimulating public attention, the City Board of Health proposed that it should be permitted to assume charge of cleaning the city and that proper financial sustenance be doled out to that end.

The suddenness of the proposition awakened the office of the Commissioner of Public Works, who quite actively made the public aware that the disposition of public funds for public cleanliness was in its hands. That the public had to be persuaded that such an office still existed was evident from the heavy artillery of the daily press and even the Progressive Union took a hand in the ventilating process, all of which up to the present time has resulted in nothing tangible.

Within a few years, our city has grown to be a winter resort—full of attractions, full of its own characteristics of the better sorts, and always rich in interest to the stranger. From every side, however, whenever New Orleans finds a friendly criticism, it is qualified and even discounted by the ever constant reference to the foul gutters and dirty streets. The most romantic sites are bounded by the worst of these things.

Complaints have hitherto found a deaf ear and a lack of attention, which bespeaks more than passing commentary.

Havana has moved from the place of one of the dirtiest to the cleanest city on this continent. Is New Orleans to hold the place relinquished by Havana?

We are not wholly persuaded that the City Board of Health should be delegated to keep New Orleans clean, but we are quite sure that the chief thing for the near future of New Orleans as a resort is clean streets.

Amalgamated Medical Journals.

While medical colleges are growing in number and doctors are getting to be a drug on the market, and while state after state is trying to restrict the licensure of these as they come, it is pleasing to see that two of our Eastern contemporaries have learned that

there are too many weekly medical journals in this country. The *New York Medical Journal* is old, long and well established and has no superior in its class; that the *Philadelphia Medical Journal* has joined forces with it, can only mean a better journal from the combination.

It is a long stride towards the need of the reader, when the two great medical centers of Philadelphia and New York are brought together in a periodical, now doubly well edited, since it loses neither of the original heads of each of the amalgamated journals. We congratulate each journal on the venture and feel certain that it means success, because of the progressiveness it indicates.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

In charge of DR. F. W. PARHAM, assisted by DR. F. LARUE, New Orleans

ANOTHER SUGGESTION IN SKIN-GRAFTING.—H. F. McChesney, of Brooklyn, makes a suggestion that might be worth while carrying out in certain cases (*New York Med. Record*, June 13). He describes the method as follows:

“The area to be grafted was cleaned off with Thiersch solution and then irrigated with normal salt solution. The granulating surface was then dried with gauze sponges. Where the granulations were firm and healthy the graft was placed directly on them; over areas of exuberant growth they were cut down and gently compressed with dry sponges until all bleeding stopped. Some of the granulations were very soft and flabby. These were all scraped away until a firm fibrous foundation was reached. Then the thin blue line of epithelial cells that had started to creep in along the edge of the wound was dissected up, and small pieces about an eighth of an inch square were cut off and placed on the granulating

surface already prepared." The advantages mentioned are, that there is little pain, that the taking of the pieces does not disfigure or scar and that at each dressing new islands may be started with very little loss of time and with little discomfort to the patient. These epidermic grafts are, as might be supposed, very active in their growth and they take well.

COMMENT.—The thing that is new about this method is the employment of the young epidermis pushing out from the border of the ulcer, as distinguished from the small (Reverdin) epidermic particles obtained from normal skin areas more or less distant from the granulating surface. In estimating the value of this suggestion we should consider it from two points of view, first, the advantage of this edge epidermis over epidermis from elsewhere, and second, the advantage of removing it from the edge to the center of the raw surface. As to the first, we may observe that the epidermis of the border is very delicate, almost embryonic in character and its most manifest characteristic is its tendency to proliferate into the soft granulation area; as contrasted with epidermis of the general surface the edge epidermis has already learned to grow and will continue to grow in any suitable soil, whereas the adult (if we might so characterize it without reference to the age of the individual) epidermis might be considered less likely to "take" and slower to grow, although our almost uniform success with large Thiersch grafts would seem to detract somewhat from the force of this argument, however true in a general way we must admit it to be. As to the second, the advantage of removing the growing epidermis from the edge towards the center, the arguments in favor, not, perhaps, immediately apparent, are several; first, that such a graft removed to the center would grow from all points of its periphery and would, therefore, project more epithelium in a given time and thus more rapidly encroach upon the granulation area; second, that, every point of an epithelial island possessing, as it seems to do, something of a catabiotic influence on the growth of nearby epidermic edges, the more these are increased in number and the greater this peripheral influence is multiplied, the more rapidly will the healing of the ulcer be promoted; and third, the prompt reproduction of the epidermis in the place from which epidermis had been removed does away largely with the objection to taking it away. We do not think the argument of painlessness

of much force, because it is in our view probably just as painful as the taking of normal skin grafts, and, besides, we have frequently under the influence of Schleich infiltration of the skin succeeded in taking a number of grafts in a comparatively painless way, the only pain indeed being caused by the infiltration of the first point of skin. The suggestion of McChesney, while not therefore to be considered as revolutionizing our methods of grafting, is in our opinion of value and deserves attention.

DRAINAGE OF THE PLEURAL CAVITY IN EMPYEMA, WITHOUT TUBES.—Leon Brinkman read a paper on the Operative Treatment of Empyema before the Philadelphia Academy of Surgery (See abstract in *Annals of Surgery for June*). He advocated drainage without the use of tubes. The operation consists in a vertical incision in the midaxillary line down to the fifth, sixth and seventh ribs, more if necessary, exposing about two inches of each rib. The periosteum having been incised and elevated and separated from all underlying tissues, the ribs are divided and the pleura laid bare without injuring it. The fluid having been evacuated through a small incision near the lower end of the space the pleura is opened all the way up. Adhesions are then loosened, pockets of pus opened up and the pleura finally stitched to the skin all around, thus insuring a large and permanent opening.

COMMENT.—This is an admirable procedure for cases not suitable for the treatment by tubular drainage, after either simple incision or excision, but it seems unnecessarily severe, as remarked by some of those who discussed the paper, for the ordinary run of cases, as we see them in practice. In our personal experience, the treatment by excision and tubular drainage has been uniformly satisfactory, and especially so in children. It has been our practice, when possible, to cover over the ends of the rib by drawing up the pleura or the muscular tissue and stitching to the subcutaneous fascia or skin. We have seen no trouble, like necrosis or septic absorption, result in any case. We favor a short tube, passed through a number of layers of gauze and sewed to it. When this is laid upon the chest wall the tube is held securely in place by the bandage which passes around the chest. It is a physical impossibility for the tube to get away into the chest cavity.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, assisted by DR. C. J. MILLER, New Orleans.

PLASTIC SURGERY OF THE VAGINA AND CERVIX.—Of the various papers read before the Section of Obstetrics and Gynecology at the New Orleans meeting of the American Medical Association, none seemed to elicit more interest and discussion than those dealing with the technic and results of the various operations for injuries of the pelvic floor. The articles by H. O. Marcey on the Better Methods for the Repair of the Perineal Structures; E. Reynolds, the Repair of Cystocele by Utilization of the Anatomic Attachments of the Anterior Vaginal Wall; and D. H. Craig, An Investigation as to the proper time for Repair of Lacerations of the Cervix Uteri, were of special interest and were generously discussed.

Dr. Marcey gave an exhaustive study of the anatomy of the pelvic floor, the function of the parts and the conditions that result from their injury. The repair of an organ implies an accurate knowledge of the anatomy and this was doubly so of the pelvic floor. The union of the transversi with the levator ani muscle is the more common part to be injured. In considering the restoration of these structures attention would be confined to methods found especially valuable in his experience. In his earlier operations he found in resecting the posterior vaginal wall that the line of division was not the mucous membrane from the structures underlying it, but the posterior vaginal muscle which had become attenuated. Separation of these tissues is not difficult and it enables the operator to differentiate the levator loop and to bring it together with the ends of the separated transversus perinei in position for easy inspection. In his early work he employed a system of disjointed pins to coapt the parts and give lateral support; but later he found kangaroo tendon to prove so reliable that he now uses only chromicized tendon. His first step is to dilate the sphincter, two fingers of the left hand are then introduced in the rectum (and kept there throughout the operation). This makes the septum quite tense. He then passes a special knife

in the posterior vaginal wall and rapidly resects it. Separation can be done often with the fingers. The separation is carried to the crest of the rectocele, usually one-third or more of the posterior vaginal wall. The flap is then held up by an assistant while deep sutures are introduced through the levator ani and transversus perinei muscles, by a large curved needle on a handle with the eye near the point. The remaining tissues are united with light continuous sutures. In complete laceration both the vagina and rectum are separately sutured with continuous sutures, care being taken not to penetrate the bowel or vagina. The operation is then completed as in incomplete tears with the exception that the fibres of the sphincter ani are dissected free and directly sutured. After operations for complete tear he uses a large rectal tube to relieve gases. In the discussion that followed, it developed that most of those who spoke, were using buried absorbable sutures in this work.

Dr. Reynolds in his paper on Cystocele and its Repair, advocated its treatment as in other hernias. Success depends upon the proper conception of the anatomical arrangements of the anterior vaginal wall. The wall is strongly attached to the pubes at its lower end and at its outer edges and upper lateral corners to the pubococcygeal and transverse muscles. During labor the entire vagina is distended. The supports of the posterior wall are stretched and often torn but the anterior wall is subjected to much less strain during the passage of the head. After labor the anterior wall is strained but its firm attachments at the edges holds it in place. If cystocele develops, it is due to a portion or all of the anterior wall remaining relaxed and useless while its attachments remain firm. Cystocele is therefore a hernia of the bladder through the foramen formed by the attachment of the anterior vaginal wall, and should be treated by excision of the sac, after separating it from the bladder and suturing the raw edges of the firm tissues together.

It made little difference as to the shape of the part excised, everything depended upon its excision. The form of the excision would vary according to the needs. If the cervix has descended, the vaginal wall is freed well up on either side, by a horseshoe-shaped excision.

Dr. J. Wesley Bovée in discussing this paper stated that he also treated cystocele as hernia. He practices resection, always passing

the sutures transversely. Care must be observed in introducing sutures to prevent pulling the cervix forward. Craig's paper, an Investigation as to the Proper time for Repair of Lacerations of the Cervix Uteri, was interesting from several standpoints. The paper was based upon the study of 100 trachelorrhaphies of from 2 to 5 years standing. The first desire was to prove the operation justifiable and necessary. It is proven necessary by the fact that it relieves symptoms that resist all other treatment, and justifiable because it relieved without producing sterility, miscarriage or dystocia. It is also known to serve as a prophylactic against malignancy. The subsequent history of his cases proved that trachelorrhaphy did not provoke sterility. Fifty per cent. showed relaceration at subsequent births. Sixty-seven per cent. were entirely free from womb trouble after a lapse of 2 to 5 years. Twelve of the 33 per cent. who were not permanently cured, he learned, had adnexal lesions, fibroids, etc. There had been no cases of malignancy.

Fifty gynecologists were addressed to ascertain their belief as to the prophylaxis of the operation against cervical carcinoma. In addition, 78 cases treated in the Free Hospital for women (Boston) were investigated. In not one instance was carcinoma found where a previous trachelorrhaphy had been done. Answers to the letters from gynecologists showed that 90 per cent. of cases of carcinoma of the cervix occurred in previously lacerated cervixes.

The following conclusions were added:

1. Immediate repair is indicated only in exceptional cases, aside from the control of hemorrhage.
2. Mediate repair is contraindicated except it be in some unusual cases.
3. Secondary repair is indicated so soon as symptoms are definitely due to the laceration, such symptoms failing of relief by palliative cure.
4. Operations on women past 35 years of age give better permanent results than in younger women.
5. Repair of the cervix is indicated as a prophylactic of malignancy in a woman approaching the cancer age, if the cervix manifests local evidence of cellular irritation, whether or not, causing subjective symptoms.

6. Lacerations in which operation is not indicated should be kept under close observation as the cancer age approaches.

7. Obstetricians are obviously unable to avoid lacerations of the cervix in many cases, but if the above deductions are correct, a far more strict asepsis will by favoring spontaneous primary union of such lacerations, do much towards lessening the number of secondary tracheloplastic operations.

Department of General Medicine.

In charge of DR. E. M. DUPAQUIER, New Orleans.

HOOKWORM DISEASE (Uncinariasis or Anchylostomiasis)—Convinced from theoretic deductions that hookworm disease must be more or less common in the South, a trip was made from Washington, D. C., to Ocala, Fla., stopping at penitentiaries, mines, farms, asylums, schools, and factories, and the fact was established that the chief anemia of the Southern rural sand districts is due to uncinariasis, while clay districts and cities are not favorable to the development of this disease.

In the Old World, hookworm disease was probably known to the Egyptians nearly three thousand five hundred years ago, but its cause was not understood until about the middle of the nineteenth century, when it was shown to be due to an intestinal parasite, *Anchylostoma duodenale*. Until 1893 no authentic cases of this disease were recognized as such in the United States, but between 1893 and 1902 about 35 cases were diagnosed. In 1902 it was shown that a distinct hookworm, *Uncinaria Americana* infests man in this country, and this indicated very strongly that the disease must be present although not generally recognized. It is now established that in addition to the few cases of Old World hookworm disease imported into the United States we have in the South an endemic uncinariasis due to a distinct cause, *Uncinariasis Americana*. This disease has been known for years in the South and can be traced in medical writings as far back as 1808, but its

nature was not understood. Some cases have been confused with malaria, others have been attributed to dirt-eating.

The hookworms are about half an inch long. They live in the small intestine, where they suck blood, produce minute hemorrhages, and in all probability also produce a substance which acts as a poison. They lay eggs which can not develop to maturity in the intestine. These ova escape with the feces and hatch in about twenty-four hours; the young worm sheds its skin twice and then is ready to infect man. Infection takes place through the mouth, either by the hands soiled with larvæ or by infected food. Infection through the drinking water may possibly occur. Finally the larvæ may enter the body through the skin and eventually reach the small intestine.

Patients may be divided into light cases, in which the symptoms are very obscure, medium cases, in which the anemia is more or less marked, and severe cases, represented by the dwarfed, edematous, anemic dirt-eater. Infection occurs chiefly in rural sand districts. Above the frost line the symptoms are more severe in summer than in winter, and whites appear to be more severely affected than negroes. Persons who come in contact with damp earth are more commonly infected than others, so that the disease is found chiefly among farmers, miners, and brickmakers. Severe cases are more common in women and children than in men over 25 years of age. Uncinariasis is a disease which occurs in groups of cases and if one case is found in a family the chances are that other members of the same family are infected.

The testimony of patients severely infected is unreliable. Recalling that any one or more symptoms may be absent or subject to variation, it may be noted that the period of incubation (at least before the malady can be diagnosed by finding the eggs) is from four to ten weeks. Stages are not necessarily distinctly defined, but are described as (1) stage of purely local symptoms, corresponding to the light cases; (2) stage of simple anemia, corresponding to the medium cases; and (3) dropsical stage, corresponding more or less to the severe cases. The duration of the disease after isolation from the source of infection has been traced for six years and seven months; how much longer infection will last is not established. If a patient is subject to cumulative infection, the disease

may last five, ten, or even fifteen years, and in case of light infection perhaps longer.

External appearance.—In extreme cases there is a general lack of development; skin waxy white to yellow or tan; hair is found on the head, but is more or less absent from the body; breasts are undeveloped; nails white; external genitalia more or less rudimentary; face anxious, may be bloated; conjunctivæ pale; eyes more or less dry, pupil dilates readily; membranes pale according to the anemia; teeth often irregular; tongue frequently marked with purple or brown spots; cervical pulsations prominent; thorax emaciated; heart beats often visible; abdomen frequently with pot-belly; extremities emaciated, frequently edematous, and with wounds or ulcers of long standing.

Urine 1010 to 1015; in advanced cases albumin without casts; acid or alkaline.

Feces reddish brown, contain eggs, and may contain blood.

Circulatory System.—Anemia pronounced, according to degree and duration of infection; blood watery, with decreased red blood corpuscles and with eosinophilia; heart disease very commonly complained of; hemic murmurs present; pulse 80 to 132 per minute.

Temperature.—Subnormal, normal, or to 101° or 102° F.

Respiratory system.—Breathing may be difficult, slow, or increased to as high as 30.

Muscular system.—Emaciation and great physical weakness.

Digestive system.—Appetite, poor to ravenous; abnormal appetite often developed for pickles, lemons, salt, coffee, sand, clay, etc.; pain in epigastrium; constipation or diarrhea.

Nervous system.—Headache, dizziness, nervousness, mental lassitude, and stupidity.

Genital system.—Menstruation irregular or absent; if present, it occurs chiefly in winter; there is a marked tendency to abortion.

Diagnosis.—The safest plan is to make a microscopic examination of the feces to find the eggs; or, if feces are placed on white blotting-paper a blood-like stain will be noticed. To make the test, use only fresh feces. Place an ounce or more of the stool on a piece of white blotting-paper (any absorbent white paper will answer the purpose); allow it to stand for twenty to sixty minutes; remove the feces and examine the color of the stain. In about four out of

five cases of medium or severe uncinariasis, the stain is reddish brown and immediately reminds one of a blood stain. In making the test on anemic patients, piles should of course be excluded.

Treatment.—The two drugs most commonly used in uncinariasis are thymol and male fern. The day before treatment the patient is placed on a milk and soup diet for three days.

Thymol.—Two grams (31 grains) of thymol at 8 A. M.; 2 grams (31 grains) at 10 A. M.; castor oil or magnesia at noon.

One week later the stools should be examined and if eggs are still present, treatment should be repeated until the eggs disappear, but it is not best to give the thymol more than one day per week. Some cases of hookworm disease are quite obstinate and require a treatment extending over several weeks. It is therefore, an **unfortunate** error to expel a few worms with one or two doses and then dismiss the patient as cured without having further microscopic examination for eggs.

Male Fern.—Maximum dose 4 to 8 grams (about 1 to 2 fluid drams) of the extract. Should be followed in three to four hours by a calomel purge, aided by a saline, but not by castor oil or other oils, as the latter increase the danger of absorption, hence of poisoning.

Calomel.—Considerable good may be accomplished in the American form of the disease by the use of calomel. This drug will **not**, however, be followed by such prompt and satisfactory results as will thymol.

General Treatment.—Build up the depleted system by means of good nourishing food, iron, etc. It is well to give the iron daily, except on the days that thymol is taken. Give 1.50 grams (23 grains) of the sulphate of iron in water in three equal doses.

Prognosis.—Good, if patient is not too far gone at time of treatment.

Lethality.—Not yet determined.

Prevention.—Treat all cases found and dispose of feces.

Economically, uncinariasis is very important. It keeps children from school, decreases capacity for both physical and mental labor, and is one of the most important factors in determining the present condition of the poorer whites of the sand and pine districts of the South.

The disease is carried from the farms to the cotton mills by the

mill hands but does not spread much in the mills; nevertheless, it causes a considerable amount of anemia among the operatives.

(*Bull. No. 10, Hyg. Lab., U. S. Pub. Health and Mar. Hosp., Ser., Wash., Report on hookworm disease in the U. S., by Ch. Wardell Stiles, Ph. D., February, 1903.*)

Department of Therapeutics.

In charge of DR. J. A. STORCK, New Orleans.

SECTION OF MATERIA MEDICA, PHARMACY, AND THERAPEUTICS.

—AMERICAN MEDICAL ASSOCIATION:

Chairman's Address.—DR. SOLOMON SOLIS COHEN: The functions of therapeutics is to preserve and restore health, to prevent and remedy disease. It must be remembered that these are both vital phenomena, and the transition from one to the other is a vital process. Hence recovery is not something brought about by drugs or other agents, but a vital process due to the essential powers of living matter.

It is not always necessary to interfere with abnormal symptoms, as their tendency may be helpful rather than harmful, they may be part of the scheme by which life is preserved. The therapist must know whether a given symptom tends to prolong or shorten life in a given case before he decides to attempt to treat it.

DR. ARTHUR R. CUSHING in a paper—“*Is Pharmacologic Action Determined by Chemical Structure or by Physical Characters?*” said: The conclusion is drawn that undue weight has hitherto been laid on the constitutional structure of drugs; it seems probable that more direct inferences can be drawn from a knowledge of the physical characters. The volatility of ether and chloroform determines their use as anesthetics. A substance must be soluble (partially) in water or blood-plasma in order to be hypnotic.

DR. M. V. TYRODE read a paper entitled: “*The Relations Between the Pharmacologic Action of Drugs and Their Therapeutic Indications.*” The theory of obtaining information by observation

is a good one, but must be used cautiously. The treatment by means of drugs of the cause of disease has not been altogether successful.

The Limitations of Antidiabetic Diet—ARTHUR R. ELLIOTT—As yet we have found no line of treatment or drug which has proved efficient in the cure of this disease. Oils and fats have been suggested as substitutes for carbohydrates.

The Absorption of Iron from the Alimentary Canal.—DR. WINFIELD S. HALL.—The mere fact that iron is in the excretion proves that it is absorbed from the alimentary canal. In the discussion, the fact was brought out that the sulphate of iron and the tincture of the chloride were, on the whole, more satisfactory than the so-called organic preparations of iron.

The paper of DR. TORALD SOLLMAN, entitled "*Research Problems of Pharmacology*," covered several points. Hospitals should have a trained man who can attend to scientific research alone. The therapeutic and poisonous actions of drugs should be investigated by laboratory experiments, and in the hospital wards and clinics.

The recommendations of the Committee on *Dosage of Liquid Medicines* were adopted as follows:

Resolved, That teachers of medicine and pharmacy, editors of medical and pharmaceutic journals and authors of text-books are respectfully requested to give precedence to the metric method in the writing of all medical formulas and that, for the administration of doses of less than a teaspoonful, the quantity be stated in drops delivered from a standard medicine dropper or pipette of three millimeters external diameter, which will deliver twenty drops of water at 15 C., which will measure one cubic centimeter when dropped at the rate of one per second, and that the teaspoon be considered as equivalent to fifteen centimeters; and

Resolved, That the orthography, abbreviations, etc., of the International Bureau, or as revised by the National Bureau of Standards at Washington, shall also be recommended for adoption in medical and pharmaceutic publications; and

Resolved, That a copy of these resolutions be transmitted to the Committee of Revision of the United States Pharmacopeia for 1900, with the request that they be incorporated, as far as possible, in the United States Pharmacopeia.

The recommendations of the Committee on *Nerve Nostrums and Drug Addictions* were adopted as follows:

In view of the spread in the use and abuse of proprietary remedies, the Section recommends:

1. That newspapers which do not print objectionable medical advertisements are entitled to and should receive the favor and preference of medical men.

2. That articles on the dangers arising from the use of quack nostrums should be written for such newspapers for publication.

3. That the Committee on National Legislation be asked to consider the feasibility of the introduction in the next House of Representatives of an interstate measure prohibiting or limiting the sale of poisonous and dangerous patent medicines.

4. That no medicinal preparation for internal use as distinguished from antiseptics, disinfectants, cosmetics and dietetics, advertised as a remedy or cure to the laity, is entitled to the patronage of physicians, nor should such be admitted to the pages of the medical journals, nor to the exhibitions of the American Medical Association.

5. That manufacturers be requested to print the scientific or chemical names under the trade name of all pharmaceutic or chemical preparations.

6. That the general plan and object of the National Bureau of Medicines and Foods are entitled to a further careful investigation by a special committee of the American Medical Association.

Drugs Used in Nervous Diseases—DR. GEO. F. BUTLER.—The abuse of drugs of this class is often due to the failure to recognize the necessity for elimination of the products of nerve tire and nerve strain. Even the so-called reflex neuroses generally arise from retention of waste produced by the constitutional effects of local irritation; hence, rarely vanish on removal of the local irritation unless constitutional treatment be adopted.

The Mind as a Causative and Therapeutic Factor in Medicine.—DR. BITTLE C. KEISTER.—The apathy of the profession in recognizing this important factor has been the one prolific cause of so much charlatanry, under the guise of eddyism, faith healing, etc.

The Composition of Some of the So-Called New Synthetics.—DR. W. J. ROBINSON.—Many of the so-called new synthetics are mere mixtures of well-known ingredients; or simple well-known compounds with new names. Some of the formulæ given by the manufacturers are either chemical impossibilities or are given in a manner to befog the physician's mind.

The discussion on this paper was very interesting and brought forth the following recommendations:

1. That inasmuch as the primary cause of the proprietary medicine evils is the lack of knowledge on the part of medical graduates, the course of materia medica should be supplemented during the last year in connection with therapeutics by a course in pharmacy especially designed to qualify the student to formulate his own prescriptions in the most eligible manner.

2. A closer adherence to the United States Pharmacopeia and the National Formulary as a basis for text-books and instruction will lead to a greater appreciation of the official drugs and chemicals and formulas of the recognized medical authorities.

3. That some well-considered plan should be inaugurated for the differentiation of the thousands of medical articles and specialties to remove the present existing confusion among physicians and pharmacists alike, and to afford some kind of criteria to their ethical status, and to separate the true from the false.

4. That the revision of the patent laws, as applied to medicines, trade-marks and copyrights should be demanded.

5. That the primary object of a medical journal published by medical men or societies should be to chronicle the work of the profession it represents, and the general diffusion of medical knowledge, and not for the purpose of making money, commercial domination through the advertising privilege being derogatory to the profession.

6. It is recommended that a committee of competent persons be appointed to act as an advisory board in determining the limitations and privileges of advertisements appearing in *The Journal* and in the exhibits of the American Medical Association.

The United States Pharmacopeia.—DR. CARL S. N. HALLBERG.—Our pharmacopeia is an ideal one. No patent drugs will be admitted to the United States Pharmacopeia of 1900 unless the patents expire before 1910.

Dry Superheated Air in Therapeutics.—DR. C. E. SKINNER.—After the heat treatment the functions of all organs is augmented. Hot air is not cure all; simply as rational therapeutic measure.

Demonstrated Pathological Effects of Alcohol.—DR. T. D. CROTHERS.—After the use of alcohol all the senses show a measurable loss of power, and diminished functional activity. The higher brain activities, such as memory, rapidity of thought, time reactions, capacity to reason, judgment of effects and of distances are all enfeebled and impaired.

The Legitimate Therapeutic Use of Alcohol.—DR. O. T. OSBORNE.—In heart failure, alcohol causes a reflex action (stimulant)

through the mucous membranes of throat and stomach. Alcohol in proper doses is beneficial.

The discussion on these papers elicited the fact that less alcohol is now being used by some members of the profession than formerly.

The Therapeutic Value of Spinal Puncture for the Cerebral Symptoms of Typhoid Fever.—DR. J. H. MUSSER.—Report of four cases, three of which recovered; spinal puncture was responsible for one recovery.

Intestinal Antiseptics. Their Use and Limitations.—DR. J. A. STORCK.—Care must be exercised in the use of carbolic acid and resorcin. Tannic acid is a valuable agent. Acetozone gives much promise. Calomel is one of the best intestinal antiseptics.

DISCUSSION.—Guaiacol benzoate, the sulphur group, salol and zinc sulphocarbolate, are used with great success.

Exercise as a Mode of Treatment in Heart Disease—DR. N. S. DAVIS, JR.—Massage and resisting exercises are best. Care should be observed to graduate the exercise.

The Limitations in the Use of Aconite and Veratrum Viride.—DR. W. B. HILL.—Their places are better filled by other agents. Care should be exercised when these drugs are used.

Department of the Ear, Nose and Throat.

In charge of A. W. DEROALDES, M. D., and GORDON KING, M. D.,
New Orleans.

RETRO PHARYNGEAL ABSCESS COMPLICATING A FRONTAL SINUSITIS.—A case of this nature is reported by Friedrich Hanzel, of Vienna, in a girl 17 years of age, who, while undergoing treatment at the hospital for acute sinusitis beginning in the frontal and involving the maxillary, was discovered to have developed fluctuating swelling on the posterior pharyngeal wall. Exploration of this swelling proved it to be due to an abscess. Examination of the pus from the accessory cavities and the abscess revealed the presence of streptococci in large quantities. The author speaks of the pathogeny of this unusual case, and of retropharyngeal abscess due

to other causes. He considers them due in most cases to infection of the lymphatic ganglions of the retropharynx described by Frost as the lateral ganglions of the pharynx. Attention is called to the danger of the condition and the importance of their early treatment—*Annales des Maladies de l'Oreille, Etc., April, 1903.*

TWO CASES OF RADICAL CURE OF OTORRHEA WITH LIGATURE OF THE JUGULAR.—A child of four years was brought to the clinic in a comatose state, edema of the face, hyperaesthesia of the body and a suppuration of the left ear with a fluctuating mastoid swelling—neck somewhat rigid and sensitive to pressure in the jugular region.

In the course of the mastoid operation the lateral sinus was opened accidentally and flow of liquid blood followed. Pus was seen to come, however, from the region of the jugular bulb external to the sinus.

Ligation of the jugular in the neck, recovery.

Second case was that of a patient suffering for 13 years with bilateral otitis suppurativa. Cephalalgia, mastoid tenderness, elevation of temperature. Cholesteatoma of mastoid treated by classical mastoid operation. Two weeks later, headache and general depression continued, ligation of jugular. Incision into lateral sinus revealed suppurating thrombus. Recovery.—HUGO FREY—Austrian Society of Otology, Oct. 27, 1902.

Department of Ophthalmology.

In charge of **DRS. BRUNS AND ROBIN, New Orleans.**

POST PARTUM METASTATIC PANOPHTHALMITIS.—In the proceedings of the Philadelphia County Medical Society (during March), Dr. W. L. Pyle reports a case of Postpartum Metastatic Panophthalmitis. In the days before the use of antiseptics and asepsis in obstetrics, it appears that this complication was the infrequent accompaniment of puerperal septicemia.

Nowadays it has become so rare that we (B. and R.) have not seen a case in a hospital and private practice of more than twenty years.

It is well for us to remember, however, that such an appalling lesion may occur during puerperal fever. A. Hill Griffith has recorded two cases that followed an apparently normal labor. The first ocular symptom is loss of vision; there is injection of the globe, appearances of iritis, perhaps pus in the anterior chamber and soon the violent symptoms of panophthalmitis with intense pain. In certain cases the course is indolent rather than acute. In every case the prognosis (to the eye) is fatal. Hot applications form the chief local remedies, but so soon as the presence of pus in the eye ball is recognized free incision through the sclera between the external and inferior recti is the only rational proceeding.

Miscellaneous.

THE STEGOMYIA AND FOMITES IN YELLOW FEVER.—The notable experiments of Dr. Walter Reed and his assistants, Drs. James Carroll and A. Agramonte—added to and strengthened by the researches and labors of Drs. Carlos J. Finlay and John Guiteras, of Drs. W. C. Gorgas, John W. Ross, H. R. Carter and probably others—and rendered possible by the official encouragement and aid of Surgeon-General Sternberg, U. S. A., and of Governor-General Wood, M. D., have contributed four sets of precious facts:

First—Fresh blood or its serum, taken from a case of yellow fever during the first days of the attack, will give the disease, if hypodermically injected into a non-immune. Hence the blood contains the poison, probably an ultra-microscopic germ, as I maintained in 1880, and this poison, when fresh, is infective without undergoing any change outside of the body.

Second.—The female stegomyia fasciata mosquito, serving as an intermediate host, can convey the poison to non-immunes. In twenty experimental cases (Reed's twelve and Guiteras' eight) the stegomyia became infected by sucking the blood during the first four days of the attack, but not later; and an interval of at least twelve days was required to infect a non-immune. However, it deserves note that no one has stated or proved that more numerous experiments might not have yielded some cases wherein the four

days' time would have prolonged and the twelve days' interval shortened. The facts thus far stated have not, I think, been denied by any one.

Third.—Excluding all mosquitoes, fomites prepared and kept under all the known conditions, universally supposed to be the very best, for supplying the most virulent fomites, failed in December and January, though an artificial summer heat was maintained, to infect seven non-immunes extraordinarily exposed to said fomites. In a second trial the following September and October, 1901, under like favorable conditions, eight non-immunes also escaped infection. These negative results in two trials, involving fifteen non-immunes, have been confidently claimed to be conclusive of the impotency of fomites ever to infect; and this claim has been as confidently denied, because, as is said, of many facts explicable by fomites but inexplicable by the stegomyia.

Fourth.—Disregarding filth and fomites, because two years of warfare against them had proved ineffectual, and limiting sanitary measures solely to excluding imported cases, to isolating every home case that did occur and to preventing in every possible way the access of mosquitoes—these measures were followed in Havana by the total disappearance of all home cases from September 28, 1901, to May, 1903.¹ Note in this connection that not less than eight cases have been imported during this time, but these cases have been isolated and carefully protected from mosquitoes, and that there have been in Havana an abundance of non-immunes. Now these four facts, introduction of imported cases, presence of many non-immunes, protection from mosquitoes and freedom from yellow fever in Havana, annually infected for at least 140 years, and monthly certainly for forty-five years and probably longer, were either cause and effect or the most extraordinary coincidences in the history of yellow fever.

Further freedom from yellow fever, though stegomyia were present, would not be conclusive evidence against them; though present they might not be infected; and, if infected, very many would die prior to the twelve days requisite to become infective; and those that lived long enough to become infective might fail to

1. The warfare against mosquitoes in Havana was begun February 27, 1901; preventive measures against filth and fomites were abandoned July 1. There were twelve deaths in January and February, but only six deaths March 1 to September 28, 1901, and none since; with the sole exception that of seven imported cases of yellow fever in 1902, two died.

gain access to non-immunes, and such failures would be the more probable the more numerous the immunes. Still further, the following reports are suggestive. It is now generally conceded that without anopheles there is no malaria. However, localities are reported from Italy, France and other countries where, although malaria once prevailed, it no longer occurs, and yet this failure to occur coexists with the annual importation of malarial cases and the continued presence of many anopheles. And a locality is reported in England where anopheles refused to suck man's blood.

The only advocates of fomites known to me who have published their views are two distinguished sanitary officers, Dr. John H. Purnell of Mississippi and Dr. Edmond Souchon, president of the Louisiana State Board of Health. Their arguments will be also summarized:

First—It is claimed that the freedom of Havana from yellow fever in 1901 and 1902 was not due to the warfare on mosquitoes, but to the rigid exclusion of imported cases and to the dying out of the disease. In support of this claim there is some evidence that other Cuban cities escaped yellow fever without effective warfare against mosquitoes. But, even if this evidence were indisputable, there are good reasons for believing that imported cases were excluded, that any cases that did occur were isolated and access of mosquitoes to them was prevented, and that these cities had very few non-immune inhabitants.

The tendency of yellow fever, as of other infectious diseases, to die out, in spite of the coexistence of some cases and of many non-immunes, has been manifested many times even in the distant past, when imported cases were not excluded and when there was no warfare against, filth, fomites or mosquitoes. A cause of this tendency of yellow fever may be a scanty reproduction in some years of the *stegomyia*, as occurs with other insects. In spite of this tendency, it is certain that this has failed for 140 years to manifest itself in Havana to an extent at all comparable with the remarkable cessation of the disease since warfare against mosquitoes was begun.

Second—The frequent return or recrudescence of yellow fever six, twelve or more months after a cold winter and without the reintroduction of the infection, is incompatible with our

present knowledge of the duration of life of the stegomyia. The greatest duration yet reported was found by Dr. John Guiteras in 1902. Of eleven infected stegomyiæ two died by the tenth day, five were dead by the sixty-fifth day, and of the remaining six the last one lived to its one hundred and fifty-fourth day. It deserves special notice that 18 per cent. died before the twelfth day, *i. e.*, too soon to have become infective, and that this mortality occurred in captives well protected from the many enemies mosquitoes are exposed to in the open. Dr. H. A. Veazie has reported that of one hundred New Orleans mosquitoes one-half died in the first week and only two were alive on the thirtieth day. Manifestly a mosquito's life will vary with its protection from enemies, with its food, temperature, light and other variable conditions. How long an infected stegomyia may possibly live under the influence of hibernation and other exceptional conditions is yet to be determined. However, Dr. John Guiteras² has reported that of thirty-three female stegomyiæ kept in an icebox at 40 to 50 F., and without food or water, three lived to the eighty-seventh day and were then destroyed by ants.

My consideration of recrudescence will be limited to criticisms on one example cited oftenest, cited recently by Dr. Purnell and by Dr. Souchon, cited also by Dr. Sternberg and by myself in 1880, when, however, every one believed in fomites and no one in the stegomyia. Hence, my reinvestigation of the supposed recrudescence in Memphis in 1879, after its epidemic of 1878, the most fatal one, proportionately to the population, ever in the United States.

The best authority for this recrudescence was Dr. G. B. Thornton, the thoroughly trustworthy president of the Memphis Board of Health. He reported³ that the first case was attacked about the 5th, was reported on the 8th and died the 9th day of July; that, although in all preceding epidemics the first case was known to have been imported from New Orleans, yet in 1879 no such case was discovered; and further, that yellow fever was not then "prevailing" in any part of the United States. From these premises Dr. Thornton and most of the medical profession concluded that

2. *Revista de Medicina Tropica* of Havana, April, 1903.

3. In Vols. v and vi. Transactions of the American Public Health Association and in recent letters to me.

the disease was due to "local origin," which, in this case, meant to houses and their contents infected in 1878, *i. e.*, to the recrudescence of the dormant vitality of infected fomites. A conclusion in full accord with the professional opinion of 1879.

To these facts and to this conclusion I now add, for the first time, I believe, in this connection, the three following facts: Dr. W. L. Coleman,⁴ an inspector of the National Board of Health, maintained that the disease was certainly due to a fresh importation of fomites, *viz.*, to two box-cars of bananas from the West Indies, via Havana and New Orleans, that arrived in Memphis prior to July 4, 1879. Further, Dr. Thornton's final conclusion was that "the disease may have been imported. If such was the case, the epidemic was, in my opinion, due to two causes, importation and local origin." Still further and more important, while it was correctly stated that yellow fever was not "prevailing" anywhere in the United States, none the less it did exist in New Orleans, as proved by the annual report of the Louisiana State Board of Health for 1879, wherein is recorded one imported case, March 26, one home case on the 16th and another on the 17th of June. Evidently, then, there was time sufficient for *stegomyia* to be transported, by the open communications then existing, from New Orleans to Memphis, to infect the first case reported in Memphis. These facts prove that this alleged recrudescence might have been due to *stegomyia* and not fomites. Conjoin the indisputable fact that the first cases reported in New Orleans have often not been the first that occurred and the case of the *stegomyia* becomes still stronger. It is doubtful whether, if all the facts could be known, other instances of recrudescence by fomites would not become as questionable as the most often cited of all instances, Memphis in 1879.

Third—In behalf of fomites it has been urged that non-immunes in camps of refuge, infested by mosquitoes and near infected cities, have been kept free from infection by the destruction or disinfection of fomites. This conclusion is very far from proven. Such cases of the disease as were imported were usually promptly isolated; quite possibly there may have been swarms of mosquitoes, but no *stegomyia*, for these seem to prefer houses and to "shun rural districts and open fields;" and there may have been *stego-*

4. See "Yellow Fever and Dengue," by W. L. Coleman, M. D., pp. 100-2

myiæ but none infected. Further, New Orleans could furnish many instances of adjacent places in the country, and of hospitals, asylums, jails and convents within the city, into which places cases of yellow fever were introduced but failed to originate any cases though fomites were neglected. Such exemptions occurred frequently in the distant past, when no efforts were made either to isolate the disease or to disinfect fomites. It seems to me that all such exemptions are more explicable by the absence of infected *stegomyiæ* than by the fomites theory.

Three instances, often cited, of exemption from yellow fever will illustrate the claims of advocates of fomites. In 1878 many hundreds of refugees fled from Memphis to Camp Joe Williams, four and a half miles distant. Fomites were destroyed or disinfected, and although there were imported into this camp 186 cases of yellow fever, of whom 58, died, yet no cases originated in this camp. However, Colonel Cameron,⁵ commander of the camp, reported the following facts: "Four grave diggers and one carpenter, on constant duty at the hospital carrying the sick, washing the bodies, sleeping on infected bedding in tents, wearing clothing stripped from the bodies of the deceased, remained on said duty seven weeks with perfect impunity from attack." "None had previously had fever." Now if many refugees owed their escape from yellow fever to destruction of fomites, what protected these five non-immunes from fomites not disinfected?

The epidemic of 1878 in Memphis, with not one-sixth the population of New Orleans, caused over 5,000 deaths, while there were less than 5,000 in New Orleans. However, in 1879 Memphis had "1,532 cases and 485 deaths" by yellow fever, while New Orleans had only 48 cases and 19 deaths, and 34 of these cases and 12 deaths were restricted to a limited section of the city. Now, this comparative exemption of New Orleans was claimed to be due to the vigorous co-operation of the state and national boards of health and the Sanitary Association in the repeated cleansing and renovation of infected places, in thorough disinfection and in the sulphur fumigation of houses.

Further, in 1882 there were only four reported deaths in New Orleans, and this comparative exemption was claimed to be due

5. Transactions of American Public Health Association, p. 155, vol. v.

to thorough cleansing and disinfection of the section surrounding the focus of infection "for at least four blocks each way around the focus." Now, it is notable that in the last two instances sulphur fumigations were vigorously applied—the very remedy specially recommended to destroy *stegomyia*.

Fourth—Reported cases of two kinds have been urged as explicable by fomites, but inexplicable by *stegomyia*. Some cases of yellow fever have been reported where the possible infection of *stegomyia* and the transfer of the infection to the person attacked gave intervals of only 8, 9 and 10 days instead of the least interval of 12 days found in the twenty experimental cases. More experimental cases might have proved the possibility of a less interval than 12 days; but a more serious criticism is that the briefer intervals were based on supposed knowledge of what was the very first case, very often too doubtful to justify a final conclusion.

Dr. R. H. Carter⁶ claims that every disease having an intermediate host is propagated solely by its special host and never by fomites. Though convinced that present knowledge favors this generalization, I doubt whether we yet know enough to justify a final conclusion.

Malaria and the Texas cattle fever are best known in our country and most resemble yellow fever. It deserves note that cattle fever, besides other resemblances to yellow fever, has these two striking ones, the young have usually very mild attacks and an attack confers immunity. Now, the infecting germ persists in malaria often for months and years and in cattle fever probably for life; and this long persistence of the germ in healthy immune cattle caused until recently the erroneous belief that infected ticks infected their own eggs. However, my present point is that while the blood in malaria and in cattle fever remains infective long after the first attack has ended, yet the twenty experimental cases indicate that the blood of a yellow fever patient is infective during only the first four days of the attack. The lack of resemblance thus indicated justifies the suspicion that a closer resemblance may yet be proved. A ray of light may yet be found in Finlay's belief that in malaria man is the permanent and anopheles the temporary host, while in yellow fever man is the temporary and the *stegomyia* the permanent host.

6. Bulletin No. 10, Yellow Fever Institute of U. S. Bureau of Public Health and Marine-Hospital Service.

Further, Dr. Patrick Manson, one of the best authorities on malaria, gives good reason for his beliefs, that the malarial germ may have other host than man, and that this germ may be deposited in the soil, inhaled in dust and thus cause the disease. And many good observers still maintain that drinking water may become infectious by the dying therein of infected mosquitoes, as is still taught by some to be the case in filariasis. Still further, Dr. Carlos J. Finlay believes that the fresh blood of yellow fever on the proboscis of a stegomyia can infect a non-immune within the usual period of incubation, while the germs within the stegomyia would require twelve or more days to become infective.

A great majority of physicians in New Orleans, myself included, firmly believed, until at least 1867, that yellow fever originated in this city, as was then universally claimed as to other habitually infected cities, and all of this great majority unhesitatingly testified that they had never observed a single case either of direct contagion or of infection by fomites. As steamboats and railroads multiplied and many adjacent places on the routes of travel became infected *after* outbreaks of the disease in New Orleans, the conviction gradually gained ground that yellow fever did follow the routes of travel and was an infectious disease. Then followed numerous reports that some places on these routes had not had any case of yellow fever introduced therein, certainly the usual precursor of an outbreak, but that fomites had been introduced. Our imaginations failed to invent any explanation for these credited reports except infection by fomites. However, this concession to fomites was made very grudgingly, because New Orleans physicians could not ignore their innumerable experiences of the failure of fomites to infect. Hence the hypothesis invented to explain these credited reports was that, while fomites were usually innocuous yet that under the rare influence of some unknown mysterious conditions fomites did become infectious.

For such reasons I, as soon as convinced that mosquitoes did follow the routes of travel and that the stegomyia was a conveyer of yellow fever, embraced the stegomyia as a welcome substitute for those unknown mysterious conditions about which I have wasted, as I now believe, many weary hours of study; and I earnestly hope that the future may permit my brain to rest in peace with the comprehensible stegomyia—unvexed by the incom-

prehensible, mysterious hoodoo, fomites. I, like others, have advocated fomites, always, however, citing my authority. For my part, I have never secured satisfactory proof of a single case either of direct contagion or of infection by fomites. I have investigated reported cases of infection by fomites, and I have known several cases, supported by very strong evidence, which after laborious investigation, were conclusively traced to a usual cause, viz., said infected houses, and not by fomites in their uninfected country places.

Finally, it deserves consideration in behalf of sanitary officers who hesitate to abandon the disinfection of fomites, that more places than New Orleans have suffered by numerous advocates of innumerable "sure cures" and sure preventives for yellow fever. Notable among these advocates was Gen. Benjamin Butler, U. S. A., in 1862. He, whose memory is still odious in New Orleans, issued in 1863 a pompous farewell address in which he proclaimed: "I have demonstrated that the pestilence can be kept from your borders." His sure preventive was cleanliness, enforced by sanitary regulations, executed by an efficient sanitary police. However, conjoined with this sure preventive the U. S. Navy effectually blockaded New Orleans. General Butler's sure preventive was heartily indorsed by many medical officers of the Army, by northern physicians generally, by public and medical press and by many eminent sanitarians. Among these was Dr. Elisha Harris of New York, who had held several of the highest positions as a sanitary officer and became a president of the American Public Health Association. His advocacy was so conspicuous and enthusiastic that I replied to General Butler's claim and closed with this question, which has never yet been answered: If New Orleans was saved from yellow fever by General Butler in 1862, when there were two reported deaths, who saved New Orleans in 1861, when there was not one reported case or death, and when blockaded New Orleans was occupied by General Lovell and his very many non-immune Confederate soldiers, who enforced no preventives of any kind?

CONCLUSIONS.—The probabilities now are that the stegomyia, the only cause yet proven, is the sole cause for the dissemination of yellow fever; but that time is required to convert these probabilities into certainty. Boards of health, should they neglect any practicable measure of warfare against the stegomyia, would deserve the

severest punishment of the worst criminals. Southern boards of health are excusable for over-precaution against yellow fever. States adjacent to Louisiana have power, by sanitary restrictions, to strangle the commerce of New Orleans and Louisiana should not abandon the disinfections of fomites until approved by said States. Boards of health are representatives of the people and are justified in continuing to disinfect fomites as long as public opinion may favor this measure and until the probability of its inutility is converted into certainty.—S. E. CHAILLE, *Journal A. M. A.*, May 23, 1903.

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary.

DR. J. M. BARRIER,
President,
Delhi.

DR. L. G. LEBEUF,
1st Vice President,
New Orleans.

DR. F. J. MAYER,
2d Vice President,
Scott.

DR. OSCAR DOWLING,
3d Vice President,
Shreveport.

DR. WM. M. PERKINS,
Secretary,
163 University Pl.,
New Orleans.

DR. M. H. MCGUIRE,
Treasurer,
731 Carondelet St.,
New Orleans.



COUNCILLORS.

Dr. A. G. Friedrichs,
Chairman,
2d Cong. District,
641 St. Charles St.
New Orleans.

Dr. S. L. Williams, Sec'y,
5th Cong. District,
Oak Ridge.

Dr. J. F. Buquoi,
1st Cong. District,
Pointe-a-la-Hache.

Dr. F. R. Tolson,
3d Cong. District,
Lafayette.

Dr. N. K. Vance,
4th Cong. District,
Shreveport.

Dr. C. M. Sitman,
6th Cong. District,
Greensburg.

Dr. C. A. Gardiner,
7th Cong. District,
Bristol.

NEXT MEETING, LAFAYETTE, LA., MAY 3, 4, 5, 1904.

DR. FRED J. MAYER, Scott., La.,
Chairman Committee on Arrangements.

This department of our official organ will hereafter be in charge of the Society, and with the active co-operation of our members we hope to make it a most effective means for building up a State and Parish organization. For this we need regular reports of Parish Society meetings and fresh news items about our members from all

over the State. Address all communications for this Department to 163 University Place, New Orleans.

After many vexing legal delays the Society was incorporated June 10, the final details being completed on June 15. It would be well for each member to familiarize himself with the New Charter, Constitution and By-Laws, copies of which have already been distributed. Lest misunderstandings should arise, we wish especially to call attention to the fact that the Society by unanimous motion fixed the dues for 1903 at \$5.00, the \$3.00 dues not beginning until 1904.

These dues are to be paid direct to the TREASURER. (See address above.)

Dr. M. H. McGuire was appointed Treasurer for the unexpired term of Dr. H. S. Cocram, who resigned.

A form of Constitution and By-Laws for Parish Societies, based upon our Charter and Regulations has been drafted for the guidance of those interested in Parish organization work. Printed copies may be had from the Secretary. In organizing a Parish Society the necessity for inviting the co-operation of all regular Physicians should not be overlooked. *When organizing* is the best time to bury personal animosities and petty jealousies.

The Seventh District has taken the lead in organization work since the April meeting. Its Councillor, Dr. C. A. Gardiner, has been actively at work collecting lists of registered physicians in the parishes under his care, and visiting various parish seats. He is keeping this office constantly informed about the progress of his work and we hope next month to present a formal report from his District. We hope by that time to hear something from our other Councillors.

Fifteen delinquents were dropped at the last meeting. Two of those have been reinstated on payment of their indebtedness.

189 members were registered at the 1903 meeting.

In accordance with the motion unanimously passed by the Society, the President has appointed the following Committee, consisting of one member from each Congressional District, to frame a law which will suitably and practically provide for the efficient enforcement of the requirements of the State Board of Medical Examiners: First, Dr. F. A. Larue, New Orleans, Chairman; Second, Dr. J. B. Guthrie, New Orleans; Third, Dr. F. R. Tolson,

Lafayette; Fourth, Dr. C. W. Hilton, Monroe; Fifth, Dr. W. R. Sutherlin, Shreveport; Sixth, Dr. Charles McVea, Baton Rouge; Seventh, Dr. C. J. Ducoté, Cottonport.

The Society, by unanimous motion, endorsed the idea of the Louisiana Pasteur Institute and directed that a Committee be appointed to aid in the work. The President therefore appointed the following:

Orleans Parish, Dr. Charles Chassaignac, Chairman; Acadia, Dr. D. D. Mims; Ascension, Dr. J. B. Easterly; Assumption, Dr. T. B. Pugh; Avoyelles, Dr. W. G. Branch; Bienville, Dr. F. M. Thornhill; Bossier, Dr. Braxton Wise; Caddo, Dr. I. M. Callaway; Calcasieu, Dr. A. H. Moss; Catahoula, Dr. T. M. Butler; Claiborne, Dr. J. C. Willis; East Baton Rouge, Dr. L. E. Morgan; East Carroll, Dr. F. R. Bernard; East Feliciana, Dr. I. T. Young; Franklin, Dr. C. L. Ramage; Grant, Dr. J. V. Bonnette; Iberia, Dr. G. J. Sabatier; Iberville, Dr. L. H. Viallon; Jackson, Dr. G. W. Tait; Jefferson, Dr. S. D. Gustine; Lafayette, Dr. F. E. Girard; Lafourche, Dr. Thomas Stark; Lincoln, Dr. S. L. White; Madison, Dr. G. W. Gaines; Morehouse, Dr. O. M. Patterson; Natchitoches, Dr. Z. T. Gallion; Ouachita, Dr. C. W. Hilton; Plaquemine, Dr. H. L. Ballowe; Pointe Coupée, Dr. J. H. McCaleb; Rapides, Dr. C. J. Grémillion; Red River, Dr. James McGouldrick; Richland, Dr. D. R. Sartor; St. Helena, Dr. C. M. Sitman; St. John-the-Baptist, Dr. L. D. Chauff; St. Landry, Dr. G. Richard; St. Martin, Dr. A. Guilbeau; St. Mary, Dr. S. J. Gates; St. Tammany, Dr. J. F. Pigott; Tangipahoa, Dr. J. H. Ellis; Tensas, Dr. E. D. Newell; Terrebonne, Dr. R. D. McBride; Vermillion, Dr. J. A. Villien; Vernon, Dr. F. W. Dortch; Webster, Dr. L. Longino; West Baton Rouge, Dr. S. H. Caruth; West Carroll, Dr. T. M. Pulley; West Feliciana, Dr. A. F. Barrow; DeSoto, Dr. J. J. Peters.

Orleans Parish Medical Society Notes.

[Edited by the Publication Committee, Dr. S. M. D. Clark, Chairman, Drs. Jules Lazard and N. F. Thiberge.]

At our meeting of June 13, the following new members were elected: Drs. Joseph Holt, J. T. DeGrange, C. H.

Tebault, Jr., Amedeé Granger, J. D. Martin, W. J. Durel, Samuel C. Weeks, W. G. Troescher and George J. Tusson. Several of the above were once members and the Society is pleased to have their names again on the rolls.

The membership of the Society has now reached the highest mark ever before attained, there being 215 active and 6 honorary members. Though the present administration feels a certain pride in this splendid showing, still it is realized that the substantial footing is only the result of the prolonged and untiring efforts of earnest workers in preceding years.

The average attendance at meetings is from 35 to 40. With an active membership of 215, the attendance should be larger. In looking over the members present at the meetings one is struck by the scarcity of the older practitioners. The younger men compose at least 90 per cent. of the attendance. It is just on this point that the greatest improvement in the Society can be made. What is it that keeps the older men from meetings? Is it that they feel that they have already served their time in making the Society's success, or is it that they have permitted themselves to grow out of the habit of attending its meetings? It is those occupying chairs in our institutions whose presence would add so much to the value of our meetings. The great benefit that would be derived by the younger members in listening to papers read and discussed by the older men would be of untold benefit.

Those of the senior members of our Society that do attend add through their presence so much to our meetings, and are always listened to with such keen interest and attention. They are frequently appealed to by junior members for opinions on cases and topics under discussion. The young man, in seeing his senior attain such proficiency is naturally inspired to higher ideas. It is to be hoped that the older members of the profession will attend meetings more regularly, prepare papers and enter into the spirit of the organization with more vigor; give the members of the Society the benefit of their storehouse of information and not simply pay dues and allow their names to be carried on the list without doing active work.

On July 11, the Quarterly Meeting of the Society will be held. At this meeting reports of officers and important committees will be received and after the transaction of routine business the meeting

will adjourn to participate in refreshments, consisting of ices, cool drinks, cigars, etc. Let the members attend this meeting in large numbers and develop the social feature of the Society.

Every regular physician in Orleans Parish should have his name enrolled on the list of active members of this Society. What excuse can any practitioner give for not joining? There is no tangible reason why the profession of the Parish should not be thoroughly organized through the medium of this Society and in so doing join the general spirit of organization that now seems to take hold of the profession throughout the universe.

We meet twice a month regularly and always enjoy a very entertaining and instructive evening. The recent adoption of the Constitution of the A. M. A., making the local Society its basis of organization, almost compels one to join his local medical body in order to affiliate with medical organization. Though our regular meetings are in themselves sufficient to induce members of our profession to join our Society, we have another attractive feature in our Library. The rooms are open from 9 A. M. to 1 P. M. and from 1:30 to 5:30 P. M. daily, supplied with electric fans, phone, etc., and there are nearly 4,000 volumes and 110 medical periodicals. The Assistant Librarian is always present and ready to render aid in looking up references and it is his duty to typewrite any paper read before the Society free of cost to the essayist.

The Society extends the use of its rooms and Library to visiting physicians. During the winter months we were glad to see present at our meetings different members of the profession who were taking post-graduate work at our local institutions.

Medical News Items.

THE NEW ORLEANS COLLEGE OF DENTISTRY has been reorganized and has received an infusion of new blood. The faculty is at present composed of Geo. J. Friedrichs, A. G. Friedrichs, S. R. Olliphant, E. D. Martin, E. L. McGehee and J. J. Archinard, all M. D.'s; and L. D. Archinard, C. V. Vignes, and M. R. Fisher, DD, S.

Dr. A. G. Friedrichs is the new dean and Dr. C. V. Vignes is the secretary.

We understand that the college has purchased a handsome property about two blocks from its present site and will endeavor to have it ready for occupancy for the next session which opens October 6, 1903.

This institution has already made great progress and we hope that with its energetic new leader it will make still more rapid strides.

PERSONAL.—Dr. I. I. Lemann, of New Orleans, has returned after some weeks in the North.

THE AMERICAN CONGRESS ON TUBERCULOSIS has been postponed to April, 1905, at Washington, D. C.

ANNOUNCEMENT.—Messrs. Lea Bros. & Co. announce the issuance of an important new work on the Eye, Nose, Throat and Ear, edited by Drs. Posey and Wright.

DIED.—Dr. I. N. Love, died June 19 on the steamship *Aurania*. The doctor was well known in St. Louis where he practiced for many years. For the past three years Dr. Love was located in New York.

NEW ORLEANS NEW SEWERAGE BEGUN.—Under the auspices of the Mayor of the City, various prominent citizens, and with appropriate religious and civic ceremonies, the ground was broken for the New Sewerage System, on June 25, at Canal and Robertson streets. This plans some 300 miles of sewerage pipes at a total cost of about \$5,000,000. The work begun on the 25th contracts for most of the main sewers, at a cost of \$1,661,912.75.

Publications Received.

Diseases of the Heart and Arterial System, by Robert H. Babcock, M. D.—D. Appleton & Co., New York and London, 1903.

Hansell's Guide to New Orleans, Historical-Descriptive—F. F. Hansell & Bro., Ltd., New Orleans.

The Care of the Baby, by J. P. Crozer Griffith, M. D.—W. B. Saunders & Co., Philadelphia, New York and London, 1903.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR MAY, 1903.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	5	3	8
Intermittent Fever (Malarial Cachexia)	6	3	9
Small Pox.....	1	....	1
Measles .....	....	....	....
Scarlet Fever .....	....	....	....
Whooping Cough.....	1	....	1
Diphtheria and Croup.....	1	1	2
Influenza	1	2	3
Cholera Nostras.....	3	2	5
Pyemia and Septicemia	3	1	4
Tuberculosis.....	48	51	99
Cancer.....	20	6	26
Rheumatism and Gout .....	....	3	3
Diabetes	1	....	1
Alcoholism	2	1	3
Encephalitis and Meningitis.....	12	2	14
Locomotor Ataxia.....	1	....	1
Congestion, Hemorrhage and Softening of Brain.....	10	7	17
Paralysis	3	2	5
Convulsions of Infants	7	2	9
Other Diseases of Infancy	7	8	15
Tetanus.....	2	....	2
Other Nervous Diseases	3	1	4
Heart Diseases	30	19	49
Bronchitis	3	2	5
Pneumonia and Broncho Pneumonia.....	21	17	38
Other Respiratory Diseases .....	....	3	3
Ulcer of Stomach.....	4	....	4
Other Diseases of the Stomach	2	2	4
Diarrhea, Dysentery and Enteritis.....	59	32	91
Hernia, Intestinal Obstruction.....	1	1	2
Cirrhosis of Liver.....	6	3	9
Other Diseases of the Liver	4	1	5
Simple Peritonitis	3	1	4
Appendicitis.....	3	....	3
Bright's Disease	32	14	46
Other Genito-Urinary Diseases	4	1	5
Puerperal Diseases	2	3	5
Senile Debility.....	18	10	28
Suicide	2	2	4
Injuries.....	14	15	29
All Other Causes.....	39	9	48
TOTAL.....	384	230	614

Still-born Children—White, 19; colored, 19; total, 38.

Population of City (estimated)—White, 227,000; colored, 83,000; total, 310,000.

Death Rate per 1000 per annum for Month—White, 20.29; colored, 33.25; total, 23.76.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure.....	29.96
Mean temperature.....	73.00
Total precipitation.....	1.11 inches.
Prevailing direction of wind, southeast.	

New Orleans Medical and Surgical Journal.

VOL. LVI.

AUGUST, 1903.

No. 2.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

Typhoid Fever Among Children.*

SUBJECT PRESENTED AS CHAIRMAN OF SECTION ON DISEASES OF CHILDREN.—LA. STATE MEDICAL SOCIETY.

By E. M. DUPAQUIER, M. D., Professor on Clinical Therapeutics and Tropical Medicine in the New Orleans Polyclinic, New Orleans.

As soon as I knew of my appointment as chairman I began thinking of a subject for discussion such as to bring the work of this section up to date, and as early as November, through our official Journal, I began announcing the subject selected with some detail, such as to enlist the interest of our members.

To bring the work of this section up to date no subject for discussion was, to my mind, so appropriate as typhoid fever, since of all the medical diseases of children, none has received more atten-

*Through error Dr. Dupaquier was credited with the paper on "Treatment of Phthisis Pulmonalis" in the July number of the JOURNAL. This paper should have been under the name of Dr. L. G. LeBeuf, visiting physician to Charity Hospital, as he wrote it. Our apology to both these gentlemen is tendered at this time.

tion than typhoid, of late, and a number of facts have been so universally determined as to warrant the statement that some advance in our knowledge on the matter has been made.

In the program of the subject some points of local interest have been introduced which do not appear in the literature, thinking that we might be able from our collective observations to furnish a cause for the spread of typhoid infection, for its complication with tuberculosis, for its severity and mortality among children, here.

I have taken pains to make the work of this section instructive on points of practice, and I hope that assistance from all sources will be forthcoming.

For my part, I have here, as a contribution, a review of 12 cases of my own and that of cases reported by others.

The first point on the program to determine from the collective opinion of this gathering is whether or not in Louisiana typhoid occurred oftener among children in late years than, say, a decade ago.

Speaking of this community and from my experience, I can state that the occurrence of typhoid is increasing among children.

None of us in this city has had the opportunity, either in hospital or private practice, to see hundreds of cases like our brother physicians of larger centers, in a short period of time; but the majority of our city members in active practice will affirm, like myself, that they do see more cases now than they ever did before.

I have seen 12 cases in about 14 months, and in 18 years of active practice it is more than I have ever seen in an equal period of time.

I looked for figures and would have been glad to furnish some convincing statistics, but hours spent on the record of the City Board of Health's blood-reports have failed to result in anything better than an approximation.

Through the kindness of Drs. P. E. and J. J. Archinard I have had the opportunity of studying these reports. I knew beforehand that there I would find only a very small portion of the cases occurring in the city, since most unfortunately all cases are not tested; I mean that only a few physicians, even now, avail themselves of the great laboratory test, and in the number of reports

available there were so many failures on the part of physicians to fill the blanks properly, that aside from the essential marks of the bacteriologist, "Positive" or "Negative" in large letters, I could not get all the information I desired, even at times as to age and sex. Incomplete as they are, out of the number of reports available, I have drawn the following table:

Blood reports from the laboratory of the City Board of Health:
Out of the positive cases there were in children from 1 to 14 years—

In 1897, 31 out of 92=34 per cent.

In 1898, 48 out of 99=32 per cent.

In 1899, 31 out of 92=34 per cent.

In 1900, 34 out of 104=32 per cent.

In 1901, 37 out of 151=24 per cent.

In 1902, 33 out of 101=33 per cent.

It would seem seasonable, at this juncture, to urge physicians to avail themselves of the laboratory's good work, and to fill the blanks carefully, as reference could be easily secured hereafter.

Our hospital records are not specifically instructive as to typhoid in children, since the reports of the Charity Hospital fail to classify separately the medical diseases of children. The suggestion that the Milliken Department's report be published apart does not seem out of place. Another reason why information from the Children's Hospital would be, if available, only limited, is that comparatively few sick children with typhoid are sent to the hospital. We recall here a remark noted in Curschmann's monograph on typhoid (Am. Edit. Nothnagel's Encyclopedia), that the experience of private practice and the statistical statements referring to the population are far more reliable in this connection than the data obtained from general hospitals.

Thus, only the personal report of each of us will settle this point: Is typhoid among children increasing, here?

The second point on the program is this: The true condition is often unrecognized, especially in nurslings.

Typhoid certainly occurs in infants and in children under two years of age. It is only apparently less frequent during that period of life, because the disease is not recognized, being mistaken for other conditions (Morse).

Of the 12 cases treated by myself, two were 18 months old. Of the cases reported in the table above, one was 8 months old.

Blumer reports a case in an infant five days old; Gerhardt reports a case in an infant twenty-five days old.

From the statistics of Elizabeth and Oldenburg Children's Hospitals of St. Petersburg (Curschmann), out of a series of 3504 cases of typhoid there were 9, or 0.26 per cent, aged from one to six months; there were 35, or 0.99 per cent, aged from six to twelve months; there were 173, or 4.94 per cent, aged from one to two years. Out of a series of 647 cases of typhoid there were 2, or 0.31 per cent, aged from one to six months; there were 5, or 0.77 per cent, aged from six to twelve months; there were 14, or 2.15 per cent, aged from one to two years.

Ollivier had among 611 cases only 3 under the age of two years.

Curschmann saw only 3 cases under two years.

Of 331 cases, 9 under two years of age were diagnosed by Hensch as typhoid fever. Of Blackader's recent series of 100 cases, 4 were under two years of age. Koplik has seen only 2 cases under two years. Comby also states that typhoid is rare in the infant and the child under two years of age. Griffith and Ostheimer review the cases reported in children under two and one-half years, adding some of their own. Their conclusion is that there is no question that typhoid at this age is relatively rare. But they deny that the disease is actually rare. Their careful analysis proves the correctness of their views (*Prog. Med.*, Mch. 03).

So far the majority of us excluded typhoid in the diseases of infancy or the nursing age, the period of life during which the child is at the breast, extending from birth to the twelfth month (Koplik), because typhoid infection is transmitted by food and drink, and carried into the organism through the digestive tract; but, if theoretically, an infant should take nothing but the breast, how many during that nursing age actually take the breast only? All nurslings are given water or a little of some food that can not hurt, says the mother. We have all seen nurslings gnawing at pieces of bread, crackers, banana or raw apple, dropped to the floor, picked up by any kind of hands, hurriedly wiped with anything or blown upon and given back to the innocent gnawer. No wonder that nurslings with a weakened resistance get infected with typhoid

as well as children that eat and drink of almost anything. So far, the majority of us excluded typhoid in children under two years because anything the child has during this period is thought to be due to cold, indigestion, teething, eruptive fever or any other commonplace traditional trouble. Well, now we should know better.

The third point on the program is this: The peculiarities of typhoid in children are many and misleading.

Though essentially the same as in adults, the symptoms in children are in a great measure peculiar.

None of my 12 cases, even those 5 whose ages ranged from ten to twelve years, presented the characteristic typhoid temperature curve. In 5 whose ages ranged from 18 months to five years the curve was markedly remittent. The febrile stage lasted only three weeks in 10 cases. In two severe cases it lasted only seven weeks.

The pulse in the cases under five years was very high from the start. The heart showed sign of weakness, with dilated pupils and dyspnea in 1 case only, 18 months old, a fatal one, for the first time in the course of the seventh week, during the tepid bath ordered from the beginning of the treatment.

The stools were more or less characteristic, not excessive; that is, none had more than six stools in twenty-four hours.

The abdomen was hardly tympanitic, except in the five older ones.

Vomiting was marked at the onset in one case, a babe 18 months old.

None presented hemorrhage or perforation.

The roseola was seen in three cases only; in one, a babe 18 months old it was profuse, confluent, distributed over the whole body, so much so that at first it was thought to be due to the coal-tar preparation administered to the child before my coming.

The spleen was palpable in all, not very enlarged in any.

The nervous symptoms at the onset suggested meningitis in three of the younger cases. They presented the Kernig's sign and all three died subsequently. But the Kernig's sign was seen in two other cases, showing no cerebro-spinal involvement, and both cases recovered. Carrière of Lille has seen the Kernig's sign in 45 per cent of all his cases of typhoid in children.

Lung symptoms at the beginning and during the course were present in the form of simple bronchial involvement only.

But, we must know that in younger children the period of invasion which is so indefinite as a rule may simulate a pneumonia. Says Koplik: In fact, these cases begin as pneumonia, and it is only on careful consideration of the clinical symptoms—the predominance in a few cases of cerebral symptoms or the enlarged spleen and the presence of roseola later on, with the elevation of temperature—that we are led to think of typhoid. In some of these pneumonia cases there are none of the characteristic features of typhoid. There is no roseola, no splenic enlargement, no epistaxis, but there may be diarrhea.

Not only meningitis and pneumonia, but also appendicitis, even in the very young, may simulate typhoid in their onset. Regarding enteritis, all cases of mild typhoid infection escaping diagnosis are regarded and treated as simple enteritis. Many cases of continued remittent fever in nurslings are caused by typhoid (Griffith). These peculiarities are misleading.

In fact, prior to 1897 it was impossible to diagnose during life positively any case of typhoid in infants, and very difficult to do so in children under two years; even now the diagnosis at times is a problem, but with the improved methods of laboratory diagnosis of typhoid we may hope to find it out in almost every case.

The Widal agglutination reaction is of greater utility in making a positive diagnosis of typhoid in children than in adults. In the 84 cases of Koplik the reaction was found positive in 81. In Morse's cases it was present in 95 per cent. In Hand and Walker's 71 cases it was present in 87 per cent of the cases.

According to Morse, the Widal reaction occurs under the same conditions and with the same limitations in children as in adults. There is some evidence to show, however, that in them the reaction appears earlier, is feebler, and persists for a shorter time than in adults. It is of especial value in two ways in the diagnosis of typhoid in children: First, in ruling out many cases of gastrointestinal disorders which might otherwise be mistaken for typhoid; and, in making a positive diagnosis possible in mild cases which might otherwise pass unrecognized. The Widal test is of inestimable value.

For those who can not make use of the laboratory test, they can depend on the Ehrlich diazo reaction in the urine. In all the cases of Koplik in which the Ehrlich was obtained, the Widal was positive, and appeared in the first two weeks of the disease. It may be present on the fifteenth day and be absent the next. The fifth day was the earliest day on which it was obtained. In the majority of cases it was present from the seventh to the tenth day of the disease. The latest appearance was on the forty-seventh day.

In all my cases reported positive by the Widal in the second week, I have constantly found the Ehrlich.

In conclusion, it may be said that in the presence of symptoms and signs of typhoid the diazo is an aid to diagnosis, although not pathognomonic of the disease (Koplik).

The fourth point on the program is this: The practical management of typhoid, especially at the age of two years or thereabouts, is far from easy.

The essential requisites in the management of typhoid in children, as in adults, are above all nursing, absolute rest and liquid nourishment. In practice, while this is carried out without difficulty in cases of infants who are easily kept in the arms of the nurse or in their cradle, breast or bottle-fed, it is by no means so easy to keep quiet in bed or in the arms a nervous child of about two years of age, usually spoiled, accustomed to run about the house all day, filling its little stomach with all sorts of things. Stupor and depression, even in moderately severe cases, are not features of typhoid in children. There are probably many a case of ambulatory typhoid in children. Their resistance is wonderful, and we commonly see seriously sick children up and about with fever. The excellent disciplined treatment of hospitals and sanitariums which we would like to enforce in private practice is sadly lacking, if not distorted, in homes.

The limited number of children of about two years of age of the poor class, who are sent to the hospital on the one hand, and, on the other, the limited number of children of the well-to-do class who are nursed by trained nurses, make it apparent that the very great majority of typhoid cases in children are left without proper care at home. Relapses are more frequent in children than in adults; and, while Koplik says relapses are apparently occurring

independently of the mode of treatment and diet, as a matter of fact I have seen repeated relapses in the two cases that lasted seven weeks, and they were boys 18 and 20 months respectively, the most troublesome, the hardest cases to manage I have yet seen. They would not stay in bed or in the arms, and would obstinately refuse milk, broth, or even water.

I can not believe that these were exceptionally stubborn children. There are too many like them. Such cases would be readily disciplined away from their surroundings, but when mention is made of the hospital, charity or private, according to circumstances, indignation, of course, is the reception we get.

However, the enforcement of a rigorous treatment is necessary in typhoid of children, and we should not be misled by the statements that severity and mortality are less than in adults. My personal experience is probably too gloomy, and my series of 12 cases reported an unlucky one; but I am impressed with the fact that I had three fatal out of twelve cases, and that two of the fatal cases have had repeated relapses from relaxation in the rigorous treatment, finally having complications which took them away.

The fifth point on the program is this: The relation of typhoid to tuberculosis is decidedly marked.

This statement is made from the facts observed. Out of 12 cases, 3 of the younger ones, 18, 21 and 28 months old, respectively, died of tuberculosis subsequently to their attack of typhoid, proved by the Widal. So, the conclusion is forced upon me that there is a great susceptibility to tuberculosis after typhoid in children. Two of these three cases had had a protracted typhoid, and with hardly any intermission they lingered along with an irregular fever for several months, wasting and becoming more and more anemic, dying exhausted, in marasmus, with the picture of tuberculosis of the mesenteric glands. The third case had had a severe typhoid, the severest of all my cases, with a rapid toxemia, a high temperature at the onset; the second case in the same house where his brother, 5 years old, had gone through the third week of typhoid. Had it not been for the fact that the child was still taking the breast, as I believe in continuing, though not exclusively, breast feeding up to the 20th and even the 24th month

whenever possible, I believe that but for the breast feeding he would not have lived through the course of his attack of typhoid. He presented as a proof of a severe infection, petechiæ, an exostosis above the right wrist, and a gangrenous tonsilitis, which recalled the case of angina typhosa reported by Bendix and Bieckel. He recovered slowly from the typhoid attack and remained very anemic. He was shortly after taken sick with broncho-pneumonia, from which he apparently recovered as far as local manifestations were concerned; but a continued fever set in, wasting, anemia increased. He presented polyadenitis, involvement of the superficial nodes, and though Comby states that the significance of polyadenitis of the superficial nodes has been exaggerated, it remains a fact that when accompanied by wasting, anemia and fever, it does signify that the deeply seated nodes are enlarged, and this means tuberculosis. The end came with meningitis.

Typhoid and general tuberculosis in infants and young children are often similar in clinical appearance. In both the contrast between the pathological changes and the severity of the general symptoms is striking. Both diseases are a general, rather than a local infection (Morse).

Nobecourt and Bertherand report two cases of typhoid in nurslings, eleven and fourteen months old, presenting the symptoms of tuberculosis rather than of typhoid; but the serum of the younger who died gave a positive reaction with a typhoid bacillus culture in a dilution of 1 to 150; and the second case reacted with a dilution of 1 to 200.

The Widal test also proved that my cases were originally typhoid and closely upon followed the clinical exhibition of tuberculosis.

Typhoid in severe cases leaves in its wake a condition of anemia, a state of impaired nutrition which renders the patient susceptible to any infectious disease, chiefly diphtheria and lung troubles. The connection of typhoid and tuberculosis in children is thus established. Most children are born with a burden, as perhaps 75 per cent of the whole human family is more or less tainted with such taints as tuberculosis, syphilis, cancer and epilepsy; the danger in severe cases of typhoid may come from a feeble constitution, through heritage, and from consecutive diseases among which tuberculosis should be included.

The sixth point on the program is this: Prevalence and severity in the white and negro races, in the foreign-born and in the native-born of foreign or native parentage.

We should attempt to account for the spread, severity and mortality of typhoid, which we now see here, and which to all accounts were unknown to the former generations of local physicians.

There is no question that typhoid as it is now here, is the typical old-time one of Europe and of the northern sections of our continent. It was imported by the affluence of people from the northern sections into our midst, and it found here the proper soil to spread with its original luxuriance in our increasing population of foreigners. The personal equation of our natives as a class is, I believe, not such as to resist at present this severe imported typhoid.

In fact, the resistance to disease is lessened here after two generations of intermarriage between natives, and tuberculosis is rife among the offspring.

My view is that the natives' hygiene is, as a whole, much better than that of the foreigner-immigrants, but it is not sufficiently beneficial. There is room for improvement which can be expressed by the following words: Feed more carefully, drink less liquor, don't intermarry.

The weakened resistance explains the severity and mortality of typhoid of our natives or residents from climatic influence and the surroundings. Indeed, we have in Louisiana a promiscuous population of blacks and Sicilians among others of undesirable hygienic slovenliness who are vagrant and ubiquitous carriers of typhoid and tubercular infections.

All mild cases of typhoid escape diagnosis. My 12 cases were all serious ones. There were 8 whites and 4 colored. All were natives. Eight were of native parentage, 4 of foreign parentage. The three that died were natives, of native parentage.

The seventh point on the program is this: Cases of continued fever, neither malaria nor typhoid, in which drug treatment causes undue mortality among children.

Manson justly says, there is a marked tendency to regard and diagnose all fevers occurring in tropical countries as malarial.

Such slovenliness in diagnosis is apt to become a habit which sooner or later is bound to have disastrous consequences.

We have all seen babes drenched with medicines for fevers, which, on being investigated and tested, proved to be neither malarial nor typhoid.

In no class of patients is it more necessary to make a diagnosis before beginning any active medication than in children. In no class of patients is it more necessary to abstain from too active medication than in children, even though the diagnosis is ascertained. What is true of pneumonia is true of typhoid in children nowadays; if the practitioner wedded to ancient methods of treatment could realize how much better results he would obtain, and how much more comfortable his little patients would be with less heroic and complex treatment, he would at once abandon it and adopt more rational methods (Editorial, *Pneumonia, Arch. of Ped.*, Jan. 1902).

We have here a number of unclassified fevers in children which do not give any result with the infallible tests, the microscope and the Widal, for a diagnosis, and which do not fare well at all with the drug treatment. All they require is rest in bed and a little dieting.

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Surgical Treatment of Empyema in Children. With Report of Cases.*

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It is not the purpose of this paper to deal with the subject of empyema in general, but more particularly, as shown by the report of cases to follow, of that special type most frequently found in children, the pneumococcus infection. In view of the fact that there still exists some controversy between the advocates of aspiration in empyema and those favoring radical operative measures, the report of individual experience becomes all-important in establishing reliable and valuable statistics, and in the determination of some one method of treatment best adapted to the particular condition. It is possible that in my series of six operated cases, the same result might have been accomplished by less drastic measures, but, be that as it may, all recovered.

The three cases, reported in more or less detail, occurred during January, 1903, at a time when pneumonia was quite prevalent; two cases were in the same family.

REPORT OF CASES.

CASE 1. Julia H., aged 7 years, of good family and personal history, was taken sick January 2, 1903, with pain in the right side, high fever and occasional vomiting. I was called the following day. Temperature then was 104°, respiration and pulse frequent. Physical examination at this time was negative. Phenacetine in

* Read before the Louisiana State Medical Society, April, 1903.

1½ gr. doses, repeated every three or four hours, as was necessary for the temperature, was prescribed, a calomel purge was ordered given that night, followed next morning by a saline. On the next day, or the third following the onset of the disease, the typical physical signs of pneumonia consolidation of the upper lobe of the right lung were present. To quiet the alarms of the parents, the prophecy of the probable termination by crisis between the fifth and the eighth day was made. On the morning of the seventh day, after a severe course of the disease, in the treatment of which oxygen was found of much value in relieving the respiratory distress and cyanosis, there was an evident attempt at crisis. The temperature dropped to 101½°, with a corresponding decline in pulse and respiration, and less respiratory effort. The temperature now persisted between 100° and 102½°. The likelihood of an involvement of the remainder of the lung or an empyema now presented itself, as indeed did its possibility from the beginning, but repeated examinations of the chest failed to positively determine any complication. While the respiratory murmur was harsh in character over the lower part of the lung, it, together with the percussion note, was in marked contrast with the tubular breathing and flatness at the apex; extension of the disease, however, was thought to be the factor in the production of the persistent temperature. On the evening of January 15, the temperature suddenly rose to 105°, and on the morning of the 18th, a bulging of the right chest made evident the existence of an effusion, even before the practice of an exploratory puncture, which, latter, revealed the presence of a thin, light-colored pus. The little patient was sent to the New Orleans Sanitarium the same afternoon and the next morning fixed for operation. Dr. M. H. McGuire administered the anesthetic and Dr. F. W. Parham kindly assisted in the operation.

Under chloroform anesthesia an incision was made in the lateral chest wall over the seventh rib and through the periosteum. By means of the curved end of the Parker's retractor, as suggested by Dr. Parham, complete denudation of the bone was easily practiced and 1½ inches of rib resected. Parenthetically, it might be remarked on this use of the Parker's retractor as a periosteotome, that it facilitates very much the subperiosteal resection. After

making the incision, the curved end of the retractor is engaged in the slit, and by slight to and fro movements is easily made to slip under the bone and then to act as a guide for the introduction of the bone forceps, thus protecting the periosteum. An incision was now made into the periosteum and parietal pleura and the pus allowed to flow intermittently. Notwithstanding that small effusions are the rule in recent cases and that the larger accumulations are found in those cases of long standing, fully one quart of pus was evacuated. A drainage tube was inserted, a large absorbent cotton dressing applied and the little patient sent to her room. The dressings were changed the next day. On the third day the wound was irrigated with a 1-1000 formalin solution. This was done to expedite the discharge of large masses of fibrin, and being found safe, was continued for some time. The tube was gradually shortened and in about ten days one of smaller calibre substituted. On February 5, the discharge having been very slight for several days, the tube was replaced by an iodoform drain, but on removing this on the second day following, it was found to have acted as a tampon, quite a large quantity of sanguinolent pus making its escape. The little patient was allowed to return home on February 9 and the iodoform drains continued. On February 14, the temperature having been erratic for some days and the discharge continuing, it was deemed advisable again to introduce a drainage tube of small calibre. This met with a prompt reduction in temperature. The tube was gradually shortened and soon again entirely removed. This was followed by an immediate response in temperature of 103°. Once more the tube was inserted and the temperature quickly fell, but the pus formation continued. On further examination it was found that a narrow, restricted channel led toward the posterior aspect of the chest wall, and a longer tube of the same calibre was inserted. It was then that a posterior counter opening to insure through and through drainage was contemplated, but the introduction of the tube to the bottom of the cavity obviated the necessity for this. While the practice of making too many openings in the chest wall should be discountenanced, I can see no valid objection to a counter-opening in those appropriate cases of a narrow, restricted pyogenic channel, when from some cause or other granulations fail to spring up and deep drainage, as

may sometimes occur, does not suffice. Although the somewhat established time limit for recovery had not yet elapsed, our fortunes were so varied, that it was with fear and trembling that we left the tube out for the last time on April 2 and substituted a gauze drain. The temperature remained normal and at the next dressing the drain was found to have been pushed out of the wound. A simple dressing was now applied and the wound was found closed on the fifth day following the final removal of the tube. During the course of the empyema, there was a marked depression of the upper chest wall anteriorly on the affected side, with a corresponding bulging of the left costal arch; the patient, in walking, was much bent toward the right.

Present Condition. Examination, April 26, 1903.

The patient has gained approximately ten pounds in weight since her discharge about three weeks ago, is perfectly erect in stature and looks healthy and robust. The chest circumference at the scar line is 21 inches, $10\frac{1}{2}$ inches to each lateral half. The two sides of the chest are symmetrical and there is a slight prominence of the sternum, which may be congenital. The spine is not deflected. The point of greatest depression in the scar, marking the point of rib resection, lies $\frac{1}{4}$ -inch in front of the anterior axillary line. Percussion resonance over the lungs is normal and the same on both sides. Auscultation reveals a slightly augmented respiratory murmur over the site of the original pneumonic consolidation.

CASE 2. Lulu B., aged 4 years, became ill on January 16, 1903. Child was somewhat frail and of good family history. The onset of the disease was with a chill and vomiting. In due time there were evidences of pneumonic consolidation at the base of the left lung. The disease ran a regular course, without crisis. After repeated physical examinations the following soon became manifest: Flatness on percussion over the left lung posteriorly; auscultation revealed distant respiratory and voice sounds; vocal fremitus was entirely absent. Exploratory puncture on February 1, showed the presence of pus.

The little patient was operated upon at the New Orleans Sanitarium on the morning of February 2, 1903. Under chloroform anesthesia about $1\frac{1}{4}$ inches of the 8th rib was resected; periosteum

and pleura were incised, drainage tube inserted and dressings applied. About 6 ounces of pus were evacuated.

The abscess cavity was well limited anteriorly and irrigations of normal salt solution were made to facilitate more rapid discharges of the pus. The discharges became progressively less, the tube was gradually shortened and entirely removed on the fifteenth day, a gauze drain being substituted for several days. The little patient left the Sanitarium on February 23, and a slight discharge from the wound continued for about a week. The wound was entirely closed in a little over a month.

Present Condition. Examination, April 25, 1903.

The little patient seems perfectly healthy, looking probably better than before she became ill. There is a very apparent gain in body weight, but how much could not be determined. Chest circumference at scar site is $18\frac{1}{2}$ inches, about one inch greater on the unoperated side. The point of rib resection is near the inferior angle of the scapula, about $\frac{1}{2}$ inch behind the posterior axillary line. Percussion of normal resonance on both sides; respiratory murmur over affected area was not so distinct, possibly from old exudate.

CASE 3. Elsie B., sister of Case 2, 18 months old, of good previous health, became ill one day in advance of her sister with the same initial symptoms. In due time there was evidence of pneumonia consolidation in the upper lobe of the right lung, well marked posteriorly. The temperature became normal in a few days (imperfect notes do not mention exact day), but soon recurred and continued between 99 and $102\frac{1}{2}$. Further examination revealed complete flatness over the whole right lung posteriorly and extending forward as far as the mid-axillary line. Respiratory murmur diminished and vocal fremitus entirely absent. An exploratory puncture was made posteriorly on February 8, the presence of pus was determined, and the patient operated on the same day. Subperiosteal resection of about one inch of the seventh rib was made, periosteum and pleura incised, and about two ounces of thick pus evacuated. The abscess cavity was distinctly limited in front. The drainage tube was inserted and the usual dressings applied and the patient returned to her room. The drainage tube was removed in ten days and simple dressings applied. The little

tot returned home with her sister on February 23, and in a short time the wound closed.

Present Condition. Examination, April 25, 1903:

The child presents a healthy, ruddy appearance and, according to her mother has gained in weight. Chest circumference is eighteen inches, nine inches on each side.

Rib resection corresponds to a point in the posterior axillary line. Percussion resonance is normal, and save for harsh respiratory sounds from a bronchitis, at present existing, auscultation reveals nothing unusual.

It might be said in common with these three little patients, that the temperature, which previous to operation was quite high, reached normal, in Case 1, on the third day following operation, in Case 2, on the second day, and in Case 3, on the day following operation. The time actually consumed in the operation was ten to fifteen minutes.

In addition to these three detailed cases, there are three upon which I operated at the Charity Hospital. In these the purulent effusion was well-marked, the disease having existed for some time, and the little patients admitted to the Hospital when operation became imperative. Rib resection was practiced in all and large quantities of pus evacuated, slowly and intermittently. Though convalescence was somewhat protracted, all eventually recovered.

BACTERIOLOGICAL FINDINGS. In four of the cases the pneumococcus alone was found. The report of the fifth case was negative and the culture tube in the sixth case was unfortunately not sent to the bacteriologist, so that no report could be made.

DIAGNOSIS. The diagnosis of empyema in children is often fraught with difficulty. It is frequently difficult to distinguish between a pulmonary consolidation and a pleuritic effusion from the physical signs alone. We may have cases with bronchial breathing and vocal fremitus present. Between a plastic and fluid exudate it is often extremely difficult to distinguish. Rosenbach, in Nothnagel's *Encyclopedia of Practical Medicine*, from whom we shall have occasion frequently to quote, says that: "Loud bronchial breathing is the rule and diminished breath sounds the exception." Our experience in the six cases under discussion, however, shows that in only one, Case 1, reported in detail, was there any difficulty in

reaching a conclusion upon physical examination and even then the diagnosis became apparent before exploratory puncture—in all the others there were diminished breath sounds, absence of vocal fremitus, and flatness on percussion, the two latter symptoms being the most prominent. Exploratory puncture, however, offers positive results. In my opinion, operative measures should not be instituted until the diagnosis has been positively established by this means. No valid objection can be urged against aseptic exploratory punctures; even if no effusion be present, an aseptic needle thrust into a slowly resolving lung may do good by promoting more rapid absorption, as in the case of exploratory punctures in hepatic inflammation.

PROGNOSIS. The prognosis in all uncomplicated pneumococcic empyemata, submitted to operation, is good; particularly is this so in cases operated on early, before the vital powers have been sapped by the suppurative process, and when the judicious administration of the anesthetic is practiced. According to statistics in the ordinary uncomplicated forms of empyema, the mortality rarely reaches 5 per cent. This is probably due to the low powers of resistance of the pneumococcus.

To show the difference of opinion existing between the German and American observers as to prognosis, I quote the following from Nothnagel's *Encyclopedia of Practical Medicine*:

“My experience will not allow me to admit that the great advance in bacteriologic examination of the exudate during the past decade has added any material data for the clinical interpretation and management of a case, either as regards the prognosis or the treatment. The mere presence of A. Fraenke's pneumococcus is not enough to induce me to give a favorable prognosis, or to prophesy spontaneous cure, any more than the presence of several forms of pyogenic organisms necessarily renders the prognosis absolutely bad, since even the worst complicated forms of empyema are often rapidly cured by radical operations.”

In a parenthetical note, Dr. Musser, the editor, says: “This is not borne out by the experience of American physicians. For them, a pneumococcic empyema is of good prognostic import.”

TREATMENT.—In looking up the literature on the treatment of empyema, we feel that though aspiration still has its advocates, the

great mass of evidence is in favor of early radical operation. In the article above quoted, we note the following:

“In the case of purulent exudates tapping is never, in my opinion to be recommended, and in spite of favorable results obtained by some authors, I can not bring myself to recommend anything but early operation, for the chances of complete recovery are distinctly diminished by puncture, as I have only too often had occasion to observe. Even in children, I believe that resection or some other method of bringing about permanent evacuation of the pus should be aimed at, for the chances of complete recovery after resection are particularly good in children.”

While it is agreed that there may be spontaneous recovery from empyema, this is no exception to the rule that there may be spontaneous recovery from almost any malady; in view of the rarity of this occurrence, it is nothing short of criminal to permit a patient to run these extremely small chances. Having decided upon evacuating pus, how should this be done, by aspiration, or more radical operative measures?

Against aspiration we have:

1. Holt's analysis of 139 cases treated by aspiration, showing that only 25 of the entire number were cured, eight of these by a single aspiration, inferring that the other 17 were subjected to the pain and annoyance of two or more aspirations; 13 died and the remaining 101 were afterward subjected to other treatment.

2. Charles N. Dowd, in an article in the *Medical News*, issue of September 13, 1902, says, in speaking of aspiration: “It was also used in a few instances to test its efficacy in cases of slight virulence, but the results were not satisfactory.”

3. Dr. Leonard W. Bickle, in the *Lancet* of September 24, 1898, reports the case of a boy ten years old suffering with an empyema of the right side, following pneumonia; recrudescence of temperature and evacuation of pus with aspirator. Ten days later he was tapped again. Two weeks later the distress was extreme. The chest was then opened and drainage instituted. Twelve months later there was a re-accumulation of the pus, the old incision was opened and complete recovery ensued.

Much further evidence might be adduced in support of my argument, but as I started out I meant to recite my personal experience

rather than to engage vehemently in the defence of a procedure which seems well established. Not only should we operate on these cases, but we should operate early. Among the many dangers of delay are more or less pronounced collapse of the lung; failure of ready expansion on the part of the compressed lung; general sepsis; adhesion to and escape of pus into adjoining viscera, stomach, duodenum, oesophagus, pericardium and even through the diaphragm into the general peritoneal cavity.

Illustrative of this, we cite the following:

1. Dr. John Cropper, in the *Lancet* of March 17, 1900, reports the case of a boy with right sided empyema. During the night preceding operation, a large quantity of pus had been passed by the bowel. After operation, the first dressing had a little food on it and, subsequently, gastric juice was found on the dressings. Despite the protest of his physician, he was taken home and soon died. No post-mortem could be held.

2. Dr. W. R. Manden, in the *Lancet* of March 31, 1900, reports a case in which the pus evidently ruptured into the esophagus. The patient made a good, though rather tedious recovery.

Aspiration should, therefore, be reserved for those virulent cases where life is threatened and there are strong contra-indications to the administration of an anesthetic.

Having therefore, decided that the open incision should be practiced, should this be done with or without rib resection? Many authors consider this a matter of individual preference. We have not agreed with some authors that the incision opening tends to become larger; on the contrary, it always tends to close.

In view of the narrowness of the intercostal spaces in children and the constant tendency of the wound to close, it is much better to resect a rib than to subject the little patient to the recurring pain and annoyance of repeatedly dilating the opening. The intercostal incision should be reserved for those cases contra-indicating the use of a general anesthetic, where a local anesthetic can be used.

The rib resection should be done subperiostially, which is easy of accomplishment, and in this way there is no danger of injury to the intercostal vessels or nerves. While the seventh, eighth or ninth rib in the mid-axillary or anterior line is the choice for mak-

ing the incision, much will depend on the individual case. In posterior and limited accumulations, as evidenced by Case 3, the incision must be made at the point where pus is found. Aside from the danger of the child clogging the tube by lying on it and the tube dropping out, posterior incisions should be performed. I think the posterior axillary line a favorable point, and, in Cases 2 and 3, the incisions were made near the inferior angle of the scapula.

In the matter of drainage tubes, we are indebted, I believe, to Dr. F. W. Parham for a very pretty suggestion for retaining the tube *in situ*. The end protruding from the wound is slit in the middle and the two lateral halves flared and sutured to absorbent gauze; the gauze pad and tube are thus one piece. The tube is inserted into the wound, the gauze comes in contact with the chest wall, prevents excoriation of the skin surface and serves to keep the mouth of the tube open.

No set rule can be established for the time of removal of the tube, the substitution of a smaller one, or its shortening; the surgeon must be governed by each individual case.

While the making of a counter-opening to facilitate drainage should in a general way be deprecated, I think it justifiable in individual cases. I contemplated doing so in the prolonged and persistent suppuration in Case 1, but later the insertion of a longer tube sufficed. A method worthy of trial for the removal of dependent accumulations, is that by siphonage by means of an ordinary hard rubber rectal syringe to which is attached a piece of rubber tubing. By this method, the cavity can be kept comparatively dry and, as we know, this favors healing.

The consensus of opinion is against irrigation. This should be reserved for those cases of fetid pus not frequently found in pneumococcic infection. Our practice in the three cases reported in detail is in conflict with our present assertion and it becomes necessary to explain this contradiction. In Case 1, there were enormous masses of fibrin, the removal of which was facilitated by irrigation. Their removal at time of operation was not deemed advisable. I must confess, however, that I believe that the continuation of irrigation prolonged the suppuration. In Cases 2 and 3 where the pus accumulations were posterior, well limited

by anterior adhesions, constituting in reality a limited abscess cavity, it was thought occasional irrigation would further facilitate the rapid removal of pus. In the three hospital cases, irrigation was practiced in only one, and after a disastrous experience, that of almost losing our patient after an injection of hydrogen peroxide, this was discontinued.

Dr. Rosenbach, of the University of Breslau, in speaking against irrigation, reports several cases of prolonging the disease by this method and some cases of death resulting. A weak antiseptic solution must act as a pabulum; in the use of strong antiseptic solutions the danger of toxic effects must be borne in mind. It must also be borne in mind that an inflamed pleura is capable of considerable absorption. Various pleural reflexes, the reflexes on the terminal nerve endings of the pneumogastric, and fatal syncope must be considered in the matter of excessive friction, as produced by irrigation. Dr. Bloch, some years ago, reported a case of fatality attendant upon irrigations. Dr. Janeway reports a similar case, and Dr. Gessner, I believe, reports a case of marked pleural reflex.

The matter of promoting lung expansion is very important; the child should be permitted to get out of bed as soon as possible and the natural exercises will tend to do much in this way. In children, the introduction of any toy proves a valuable therapeutic ally. The James apparatus, consisting of two bottles, whereby fluid is blown from the one to the other, has become standard. The capriciousness of children, however, makes them soon tire of any one toy. My little patient took great delight in blowing up toy balloons. The blowing of wind instruments, making soap bubbles, etc., offers a diversified field of amusement.

SUMMARY. 1. Physical signs are not always marked—absence of vocal fremitus is an important sign and more or less constant.

2. Exploratory puncture should always be practiced to confirm the diagnosis.

3. The prognosis of pneumococcic empyemata is very favorable.

4. Aspiration should only be resorted to tentatively and as a means of relief in emergencies.

5. In radical operations, rib resection is to be preferred.

6. Irrigation should never be practiced unless there be some special indications for same.

7. A diagnosis should be rigidly sought and once verified operative measures instituted as soon as possible.

8. In the matter of promoting lung expansion, various devices, such as blowing rubber balloons, soap bubbles, etc., to suit the caprice of the child, which soon tires of any one form of entertainment, should be instituted.

Abortion. Its Treatment by the General Practitioner. Report of a Case Complicated by Acute Suppurative Appendicitis and Ovarian Cyst.*

By DR. A. C. KING, New Orleans.

Whenever I listen to a paper upon the subject of abortion I somehow feel that that paper should begin with an apology. I feel that way regarding my own paper upon this occasion, hence I beg your indulgence. This is an old field that has been most carefully tilled on innumerable occasions, yet I believe that any one who has had to handle a large number of abortions could give us points of practical value. New features will crop out now and then that are truly interesting. I do not expect the specialist in gynecology to reap much benefit from my remarks, but I do hope to encourage the general practitioner to pay more attention to this kind of work instead of trusting too much to nature and the unreliable midwife.

Abortion is indeed a simple condition, yet is a most dangerous one if not promptly and intelligently treated. We will never be able to estimate the number of mothers sacrificed yearly by indifferent or unskilled physicians, ignorant midwives, and the ever present *professional vermin* which we *politely* call *criminal abortionists*.

I shall not go into details of treatment, as is usually done in writing of this condition, but simply refer more particularly to the use of the curette by the general practitioner in cases of inevitable abortion of three months and under. I believe that frequently cases of early abortion are left to nature by mistake. Nature is a good

* Read before the Louisiana State Medical Society, April 28-30, 1903.

old soul, tolerant and patient, but she works slowly, and an injustice is thereby done the suffering mother and time wasted by the attending physician.

I have seen a hesitancy to do the little operation of curettage in a number of instances; have seen poor judgment displayed on some occasions, and am acquainted with one or two practitioners to whom this class of work is actually distasteful.

It is not necessary to become an anatomist before you can curette a uterus, nor is it necessary to become converted into a gynecologist or to imagine yourself a surgeon, but a large fund of common, every day sense ought always to be at hand, coupled with good judgment and a certain amount of self-reliance.

The curette is not applicable to every case, and I do not wish to be misunderstood on this point; a certain number of cases will terminate favorably if left practically to themselves, others require immediate attention, and it is in this class where the curette is most useful. I refer only to the latter.

This little instrument has been bitterly condemned by some of our leaders because of a few perforations occurring in the hands of careless men, or those who seem to look upon the mother's womb as an indestructible organ, and scrape and gouge accordingly; some teachers praise the curette and others are more conservative. I remember hearing, ten years ago, one of the most brilliant members of the Southern Surgical and Gynecological Association assert that under *no* circumstances would he ever curette the uterus. Dr. Cunningham, of Alabama, immediately arose and said: "Gentlemen, whenever you deprive me of the use of my curette you take away half of my income."

One writer tells us that an infinite amount of harm has been done with it. True enough, but it is also true of many of the surgical instruments in use at this day. Another will say that it is absolutely harmless; that is also a fact. Dangerous if employed unskillfully; harmless if properly used in the right kind of cases by a hand accustomed to its use.

One teacher will advise you to use a flexible instrument, so that it may be accommodated to any flexion of the womb; another will say use a stiff one. Both the sharp and the blunt instrument will be brought to your notice by teachers in different schools. Some will

recommend one kind, some the other. It does not make a great difference which is used, so long as the man using it knows his instrument, and knows how to use it intelligently. In the end better work can be done with that instrument with which you have become most familiar in the beginning. I like the stiff curette because I began with it, and find that it answers every purpose; still, it is good practice to have a variety at hand for safety's sake.

In curetting a uterus be sure—

- 1st. That that uterus is pregnant.
- 2nd. That abortion is bound to occur.
- 3rd. That your aseptic precautions are faultless.

The indications for curettage are—

- 1st. Hemorrhage.
- 2nd. An undilated unyielding os not permitting the introduction of a finger.
- 3rd. Adherent membranes.
- 4th. Sepsis.

Hemorrhage is a dangerous condition, and gives no time for parley; the uterus must be emptied sooner or later, and it is a case of the sooner the better.

Hemorrhage threatens life, therefore demands the promptest attention. It is an indication that there is something within the womb that must come out, and you will always find that something to be either an ovum intact, or its retained and adherent membranes, and to me it is always a feeling of relief to know that the uterus undergoing curettement is finally absolutely empty.

To leave such cases to nature is certainly a grave error, yet it is done every day of the world; to pack the uterus and vagina and depend upon contractions to empty the organ is considered good practice by some, but it seems to me that unnecessary chances are being taken, besides prolonging the patient's suffering. As men I do not believe we sufficiently consider or fully appreciate the suffering caused the mother by an aborting womb. We often double up with pain from indigestion or cholera morbus for an hour or two and think we have had a most horrible time, yet the very next day, perhaps, stuff a woman half full of gauze and politely walk off, thinking nothing of the agony occasioned by that uterus in its efforts to expel, not only the ovum, but the stuffing as well.

I desire to raise my voice against such practice when it is possible to do almost painlessly, within fifteen minutes, with the curette, what nature requires hours to accomplish. Within a few moments you can clean out the organ, stop the bleeding, relieve suffering, run less risk of sepsis, and prevent loss of time and sleep on your own account.

Often the os is not dilated sufficiently to admit the finger, yet a small or medium sized curette is easily introduced, and the work done satisfactorily. Retained membranes often give trouble by causing hemorrhage and leading to sepsis, and can not always be removed through a small os by the finger, and in this condition the curette is invaluable. Frequently we find exactly this condition existing in a highly strung, nervous woman, who dreads chloroform, and positively refuses to take it. Then the curette, gently used, becomes a good friend to us.

I think the general practitioner does not always attach the proper importance to abortion and its mischief making propensity, and herein lies the cause of many of the diseases finally requiring attention at the hands of our specialists. It is our duty to the woman to know positively that a uterus making an effort to empty itself of a detached ovum finally becomes perfectly clean, and if you can not be sure, passing a curette gently over the endometrium with the proper regard for asepsis is not productive of harm, and leaves no doubt as to the condition within the organ.

No especial training is required to enable one to do this, but a certain amount of skill is necessary, and a familiarity with the peculiar feel and sound produced by the instrument as it comes in contact with solid resisting uterine tissue. You must learn to differentiate between that soft feel of the membranes, or decidua, and the harsh grating sound given by the uterus itself. This must be learned by practice and practice alone; neither text books or teachers can ever make you understand it.

Although the curette is an intelligent instrument when carefully used, it is capable of doing much damage if carelessly employed. Friedman, writing in the *Boston Med. and Surg. Jour.* of Nov. 20, 1902, prefers the finger in all cases admitting its use, and says, "the curette removes practically all of the deeper layers of the decidua serotina and vera, leaving little or none of the glandular element

upon which depends the reproduction of the normal endometrium. Whether the subsequent imperfect reproduction is not the cause of much of the persistent endometritis which is seen is an open question for the pathologist.”

That is a nice point, well brought out, and it has often occurred to me that possibly this same chronic endometritis prevents in many instances subsequent conception. Of 81 cases of abortion and premature delivery coming under my care during the past few years, 55 required curettage, that is, primary curettage; and of these 55, 24 have, to my knowledge, become pregnant since; some of the others have not, and some I have lost sight of. Evidently these 24 were not damaged by the curette.

Anesthesia is required in some cases, while with others it can be dispensed with altogether. Of the 55 cases just referred to it was given in 4 only, a few objecting to its use, and the remainder not needing it.

If the os is dilated sufficiently to allow the curette to easily enter the uterus; if you possess your patient's entire confidence, and exercise a little gentleness, it is perfectly possible to empty the womb without inflicting more than a bearable amount of pain; indeed, a good many give no evidence of it whatever.

The uterus can be punctured, and has been punctured, but it is an almost unpardonable obstetric sin, for only extreme carelessness can result in puncturing the firm-walled uterus of early pregnancy, an exception, of course, existing where the uterine wall is broken down or softened by a sepsis of several days duration.

A recent case of abortion coming under my care proved to be so interesting that I thought a brief history of the case and complications might not be out of place.

On January 27 last I was called to see Mrs. W., aged 36; history of having visited a few days before an abortionist with the purpose of being relieved. The usual symptoms of pronounced sepsis were present. Vaginal examination revealed the existence of an incomplete abortion of about 2 1-2 months. The “gentleman's” work was not thorough, nor were his aseptic precautions. Curettage was done at once, thoroughly, with strict regard for preparation of patient, instruments and myself, Dr. A. J. Babin assisting. Cavity

of womb then well swabbed with pure hydrogen peroxide, and flushed with an abundance of hot water.

Temperature dropped nicely from 103 for three days, reaching 99, then began to rise. Gave quinin in large doses, thinking malaria might possibly be present, and passed curette gently over the uterine lining as a matter of satisfying myself that nothing further existed there to give trouble. No result from quinin. Crédé's silver ointment was then applied, in half drachm quantities, 3 times a day, over the hypogastrium, and quinin, gr. iii, strychnin gr. 1-25, were given internally every three hours. Temperature now ranged as high as 103-4; septic chills. Bowels opened by mercurial purge.

On the seventh day I noticed a distinct swelling in the right iliac region, firm, tender, and extending upward toward the appendix. Pulse from 120 to 130. Ice bags ordered and were irregularly applied by the husband. After two days of close attention and active treatment some improvement could be noticed, temperature dropping to 99 3-5, patient feeling generally better. This was only a temporary affair, however, as temperature again began to rise and swelling increased and operative interference seemed a necessity. I feared a complicating appendicitis, yet did not desire to admit the possibility of so serious a condition occurring in an already debilitated patient.

I had her removed to the New Orleans Sanitarium, where Dr. E. D. Martin saw her in consultation, and after a careful examination, even then, a positive diagnosis could not be made. Uterus in good condition, but the mass continued tender and painful, and could now be felt through the vagina and reached as low as the right broad ligament. Very hot douches of plain sterile water, 3 gallons at a time, 3 times daily, were given; hot water bag over lower abdomen; strychnin; stimulating diet. Pulse continued running around the 120-30 mark, continual temperature ranging at times as low as 99, and on one occasion normal. After ten days of careful watching and excellent nursing no improvement in the local condition occurred, and no doubt existed as to the true condition. Operation done after the usual preparations, Dr. Martin assisting. Incision over the mass four inches long, straight down through the muscles to the peritoneum; further examination now

revealed a fluctuating tumor as large as a small cocoanut. This was supposed to contain pus, but the syringe drew up an almost clear fluid. This came in the nature of a surprise, as we were not looking for any further trouble than an appendicitis might give us. This tumor proved to be an ovarian cyst, adherent to the abdominal wall at its upper and outer part, posteriorly to the cecum and covering an appendiceal abscess containing nearly a teacup of pus.

In making a careful effort to find out if it might be possible to remove this cyst entire the abscess was ruptured on the outer side. Pus evacuated, cavity cleansed with peroxide and well washed with salt solution, after walling off the general cavity. To have torn the cyst away and removed it entire would most certainly have exposed this patient to the dangers of a general peritonitis, and surely she was in no condition to stand a third complication. Here is the method adopted: Cyst split from end to end on its anterior surface, fluid allowed to escape, the edge nearest the median line caught up and attached to the corresponding edge of the cut peritoneum with a continuous suture of fine cat gut as far around as possible, thus closing off the general cavity to a considerable extent. Cyst cavity now packed with sterile gauze, and further attention given the abscess. This consisted in inspecting the appendix, which was deeply situated, small and adherent, and which was allowed to remain, and making a posterior opening through which an iodoform pack and drainage tube were drawn. A few silkworm gut sutures were placed in the wound angles, and dressings applied.

The temperature dropped promptly, reaching normal on February 17, general condition of patient good. Wound dressed every second day. The packing in the cyst sac was discontinued a little too early, and as a result a small collection of pus occurred, requiring a reopening and further packing until it became entirely obliterated. Patient discharged on March 28.

In thinking over this case I do not know what other method could have been adopted in dealing with the cyst, unless it had been let alone, without putting the patient's life in greater danger. The wound being an open one, healing taking place by granulation, the result is a weakened abdominal wall at this point. I believe this double layer of sac walls will do this much good, plastered as

they are on the under surface of this cicatrix, they lend additional strength to this weak spot. They are firmly adherent at all points, the two layers now practically one, and surely hernia will be less apt to occur.

Examination of the wound a few days ago tends to confirm this belief.

Phlyctenular Ophthalmia in the White and Black Races, with Notes on its Local Treatment.*

By HENRY DICKSON BRUNS, M. D., New Orleans, La.

Phlyctenular ophthalmia is a disease characterized by the appearance of minute nodules or tiny pimples in the conjunctiva; either of the ball, or as it passes over the surface of the cornea as the anterior corneal epithelium. These efflorescences may be single or multiple and vary in size from that of fine sand to that of a pin head, when discrete; when multiple they may coalesce to form areas of infiltration occupying the whole portion of the conjunctiva visible between the open lids. To each pimple a leash of injected conjunctival vessels corresponds; so that when single it points as an index to the source of trouble, while when they are many the whole of the bulbar conjunctiva about the cornea may look inflamed.

Thus the affection is usually one most readily recognized. The only difficulties are when the out-crop is very minute and sand-like or when the whole conjunctiva, that of the lid as well as the ball, having become involved in a secondary catarrhal process there happens at the time to be no definite focus discernable. The conical efflorescence, which consists of a clump of white cells covered by the conjunctival epithelium, breaks down in a day or two at the top, and its contents being softened and lost, a greyish shallow ulcer is left. This, if situated in the conjunctiva, or at the favorite site the corneal limbus, heals gradually without leaving a visible scar. If the ulcer be wholly upon the cornea and very superficial it takes the same course, but if it be from the beginning deeper or should it subsequently become infected and so penetrate further into the cor-

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neal substance or actually perforate it, the resulting scar will be of greater or less size and density. In case of perforation anterior synechia will occur and great damage and impairment of vision may result.

One of the most unfortunate peculiarities of the malady is its tendency to recur again and again. This occurs either by new nodules singly or in crops replacing those that have run their course or by fresh outbreaks taking place after weeks or months of apparent cure. It often happens that a new attack appears in an unaffected eye just as the fellow eye seems to be recovering or completely recovered. This may go on for years. The subjective symptoms are usually conspicuous. They are photophobia, lachrymation, blepharospasm and pain usually worse in the morning. In conjunctival catarrh with which phlyctenular conjunctivitis is oftenest confounded these symptoms are absent unless the disease be complicated by ulcer of the cornea. The discomfort in conjunctival catarrh is moreover greater in the evening and it is characterized by a mucus discharge which is absent in phlyctenular ophthalmia.

Phlyctenular ophthalmia, a common disease everywhere, rises to especial importance here, in the South, owing to our immense population of negro blood.

So far as I am aware, no study of the relative liability of the white and the negro to its attacks have ever been published, nor has anyone called attention to the greater severity of the malady and its curious varieties in the latter race. So long ago as 1884 I began to be sceptical about the local treatment of this disease, and therefore to keep it in mind and to notice it with an especially observant eye. It has been my habit to treat cases with different local remedies and to watch the effect of the unlike plans of treatment pursued by my assistants. Of late, certain statistical enquiries have led to the review of all the cases of phlyctenular ophthalmia treated in my clinic during the past ten years, and the result seems to be worth communicating.

Out of 17,311 cases treated during 9 years, of which 6,290, or 36+ % were of negro blood, there were 5,052 (or 29+ %) cases of conjunctival disease. Of these 5,052 cases, 2,002 were persons of color; that is to say 39+ %, or about 3% more than the ratio of such persons to the total attendance. This at first blush

would appear to indicate that the negro is especially liable to affections of the conjunctiva. On the contrary, further examination of my figures confirms the general impression that the race is less liable to these affections than the white. Save the purulent form, to which liability is about equal in the two races, with the exception of phlyctenular conjunctivitis the negro is singularly free from affections of the conjunctiva. Thus of 3,050 whites with conjunctival disease only 438, or 14+, were phlyctenular cases; while out of 2,002 blacks with conjunctival affections 789, or 39+. Or, to illustrate this liability in another way; of the 5,052 conjunctival cases, of whites there were 438 or 8+, and of negro 789, or more than 15% with phlyctenular disease. To put it in still another way although those of negro blood comprise only about 36% of all who attend my clinic, of all of both races with phlyctenular ophthalmia the blacks form about 64%. These figures leave no doubt of the greater liability of those of negro blood to the disease in question.

But not only this; the period of life over which liability to attack extends is longer in the negro than in the white. Mackenzie (Edition 1855), says: It seldom attacks infants at the breast; from the time of weaning till about eight years of age, is the period of life during which it is most prevalent. It is rare indeed for adults to be affected with it, unless they have suffered with it from an early period of life. And Fuchs (1892): In very young children, those under the age of one year, it occurs but seldom and it ceases at the time of puberty. Adults are attacked by it only in case they have carried the disease along with them from their childhood. In negroes, children at the breast are not seldom attacked and their liability continues long past the age of puberty. In them the disease is frequently seen in adults, even of middle age, though, of course, these may have been victims of the disease in childhood also.

In four groups in which the races were divided into "whites" and "negroes," all those of negro blood being classified under the latter head, we find in:

Group No. 1. 116 whites and 66 negroes; the youngest white was 1 year old, the youngest negro 2 years; the oldest white was 56,

the oldest negro 65; the average age of the whites was $15\frac{1}{2}$ years, that of the negroes 18 years.

Group No. 2. 46 whites and 79 negroes; the youngest white was 1 year old, the youngest negro 18 months; the oldest white case was 38, the oldest negro 50; the average age of the whites was 8, that of the negroes 14 years.

Group No. 3. 54 whites and 80 negroes; the youngest white was 3 years old, the youngest negro 2; the oldest white was 23, the oldest negro 45; the average age of the whites was 9, that of the negro 14.

Group No. 4. 27 whites and 111 negroes; the youngest white was $1\frac{1}{2}$ years, the youngest negro 1 year old; the oldest white was 34, the oldest negro 40; the average age of the whites was $9\frac{1}{2}$ years, that of the negroes $15\frac{1}{2}$.

In another group classified into whites, mulattoes and negroes:

Group No. 5. Whites 14, mulattoes 22, negroes 76; the youngest white was 1 and $5/12$ years old, the youngest mulatto 1 and $8/12$ years, the youngest negro 1 year; the oldest white was 27, the oldest mulatto 36, and the oldest negro 59; the average of the whites was $10\frac{3}{4}$ years, of the mulattoes $12\frac{1}{2}$, and of the negroes 18 1-5 years.

It can be determined also in group No. 4, that of the whites 5 out of 27, or $18+$ % were over 15 years of age, while of those of negro blood 50 out of 111, or $45+$ % were over 15. In group No. 5, of the whites 4 out of 14, or $28+$ %, of the mulattoes 9 out of 22, or $40+$ %, and of the negroes 42 out of 76, or $55+$ % were over 15 years.

In those of negro blood, and especially in the black, the disease is much more severe than in the white, many of the cases may be described as malignant and almost hopeless. I can not recall having seen an eye lost in a Caucasian as the result of phlyctenular ophthalmia, though the occurrence of a phlyctenule at the centre of the cornea, will, of course, impair vision for years in a child; in an adult, or one of almost adult age, perhaps permanently. But in negro children it is quite common to see corneal phlyctenulæ become deep, intractable ulcers, causing great loss of substance and in spite of all we can do leading to perforation and prolapse, with, perhaps, escape of the lens and the passage of the eye into atrophy. Or, from early youth to middle age the disease seems to pursue

certain individuals and crop after crop of phlyctenules make their appearance, until the whole cornea is tattooed with the characteristic scars and v. is reduced to the perception of large objects or of light only. So far as I have been able to see, treatment, while it may assist in relieving particular attacks, seems to be of little avail in the case of these doomed negroes.

Ignorance, shiftlessness and filth, of course, play here important roles and preclude the possibility of acting through improved hygienic conditions. They do not, however, explain wholly the susceptibility which is plainly seen in the well to do of the race.

The varieties of the disease manifested in members of the black race are many and strange and unlike any I have seen in the white. Infiltration with the phlyctenular material may take place over large areas of the bulbar conjunctiva. Often all that part of the membrane exposed in the palpebral fissure, on one or both sides of the cornea, is infiltrated. We have become accustomed in my clinic to call this form *phlyctenule en plaque*. Sometimes the cornea is surrounded by gelatinous-looking, often pigmented, ring, and I have seen this form taken for Spring Catarrh by those unfamiliar with the varieties of the disease in this race. The palpebral conjunctiva, however, is never infiltrated and these plaques and rings go through the same course of ulceration and healing as the discrete nodules. Ulceration does not take place over the whole ring or plaque, but only over larger or smaller disseminated areas. The form described by Fuchs in which the limbus and the neighbouring corneal surface seem sprinkled with very fine grains, only to be seen by viewing the eye obliquely in certain lights, is quite common. The following cases serve to illustrate such forms of the disease.

Case No. 1. L. C., a black cook, *aet.* 22, comes to the clinic April 20th, 1901. Her general health and appearance are good. She says that the L. E. has been sore for 3 mos. V., R. E.=15/cc, L. E.= 20/xxx. In L. E. there is an ordinary, discrete phlyctenule on the corneal margin, outward. In R. E. there is an area of infiltration involving the whole of the outer part of the corneal margin and nearly all the conjunctiva exposed in the palpebral fissure. This cornea presents several nuberculæ. Calomel is dusted into both eyes daily at the clinic. On April 23, 1901, she is practically well and is discharged cured.

Case No. 2. R. W., a black washerwoman, *aet.* 20, comes for treatment April 21st, 1902. She says her eyes have been red and sore one month. There is phlyctenular infiltration of the margin of the cornea both out and inward, in each eye, closely resembling the infiltration of Spring Catarrh. There is, however, no infiltration whatever of the palpebral conjunctiva and the ring around the cornea shows imperfect outlines of phlyctenulæ in L. E. Calomel is dusted into both eyes daily, at the clinic. May 30, 1902, she is discharged cured. V., O. U. on admission and discharge, =20/xx.

Case No. 3. A black—very black—"laborer," *aet.* 13, comes to the clinic January 6th, 1903. General appearance well nourished and good. He says he has had something in R. E. for a week, V., O. U.=20/xx. A large, raised, red plaque occupies the whole of the conjunctiva of the ball that shows in the palpebral aperture from the corneal margin to the outer canthus. A shallow ulceration involves about one-half of the surface of the plaque. He is treated by instilling one drop of a 50% solution of enzymol daily at the clinic; nothing else.

January 9, looks a shade better.

January 12, decidedly better.

January 16, Almost well.

January 21, Practically well.

January 28, discharged cured.

For the purpose of studying the natural history of the disease, and of determining if possible whether the topical remedies have any curative merit, I have for some time interested myself in trying many methods of local treatment. It is, of course, well understood that the disease is one of the manifestations of a dyscrasia, that, whatever our views are to its origin and pathology, we all recognize clinically as the scrofulous state. Phlyctenular ophthalmia is *the* scrofulous disease of the eye. Its association with eczema especially of the upper lip and eye lids has long been determined. It goes without saying, therefore, that such treatment, and above all hygienic measures, as immemorial experience has shown to act favourably upon the scrofulous will always be indicated. Unfortunately with our hospital patients, the very ones in whom the disease is most frequently seen, and in its worst forms, little can be done to improve the conditions under which

the child lives. The dwelling, food, clothing, cleanliness and care are already the best that the limited means and time of the parents can procure. As a rule, to propose even moderate changes in these environments is about as sensible as it would be to insist upon a spacious dwelling, daily changes of fine linen, automobile rides, trips to the seaside or other prerogatives of the wealthy. Happily, here in the South an abundance of fresh air is the portion of every child all the year around, of the children of the poor even more than of the rich, and in New Orleans a bit more fresh meat and fruit may usually, on a pinch, be obtained for the afflicted child if the doctor recommends them. Of the many drugs extolled, I have come to prefer small doses of the bichloride, highly diluted, taken with the meals for two or three weeks out of each month and continued over long periods of time. It is a well known fact that the number of the red blood corpuscles may be increased by the proper exhibition of this salt, and any one may convince himself that these children will gain in weight and rosiness under its use.*

I have long nursed a theory that in these subjects the tissue destroying, not the tissue-building processes are deficient; their analytical not their synthetic chemistry is deranged; destructive, not constructive metabolism is feeble. Either fault is of course hurtful to growth and development, for we can not put in new and better building material until the old bricks and timbers have been removed. The symptoms of the two derangements, however, should be different; and in truth many little clinical observations incline toward the view that in the scrofulous the old and worn-out materials are not removed with sufficient rapidity and thoroughness. In the first place it is certainly in childhood that we should see most plainly the results of defective catabolism, for every consideration fortifies the belief that tissue change is then most radical and rapid. At this period much must be disintegrated and removed to make way for maturer and better forms that are to remain thenceforth comparatively stable. In later life the nutrition and maintenance of such tissues is the chief function of what are called "the vital forces." It is in early life, then, that we should

* The use of bichloride of mercury in a certain class of cases. By Dr. H. D. Bruns
NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, July, 1889.

expect to find derangements in a conspicuous but sluggish lymphatic system. Moreover we note that really scrofulous (not actually tuberculous) children are seldom, if ever, emaciated. On the contrary they are usually stout but flabby; pale or delicately pink and with good, often voracious, appetites. As they present themselves in my clinic they have most often a healthy look save for the delicate complexion, eczema or blepharitis, thick upper lip, swollen glands and imperfect or carious teeth. We have reason to believe that the so-called alteratives stimulate the retrograde metamorphoses, and mercury and iodine are assuredly chief among these agents. No one, as I have said, will be disappointed who uses bichloride intelligently in this condition and one must dabble a bit in the writings of the older clinicians to appreciate with what delight the effects of small doses of iodine were hailed a couple of generations ago. So the therapeutic test seems to favor the theory.

The practical advantages of bichloride over cod-liver-oil, syrup of the iodide, and the like, are many. In small doses (gr. 1-40 to 1-30) well diluted it is tasteless and may be given in water or milk without the child knowing that it is taking medicine. Not cloying or nauseating, it does not disturb appetite or digestion, but, indeed; by its action on the gastro-intestinal glands, and perhaps by its antiseptic property seems to act happily on both.

Of all local remedies, the other chloride of mercury—calomel—seems of some direct curative value. But I say “seems” advisedly; proof must not be looked for in the recovery of many mild cases under its employment. For that such cases recover promptly under any local treatment that is not too irritating, and, indeed under the equivalent of no treatment at all, the following tables clearly demonstrate. These tables show the results of local treatment only in 528 cases, during a period of ten years.

1. With mercurials alone in 431 cases;
2. With mercurials and other agents in 86 cases;
3. With many agents, mercurials excluded, in 21 cases:

TABLE 1.
Local treatment only with mercurials alone.

YEAR.	NUMBER OF CASES.	TREATMENT.	CURED IN		AVERAGE.
			FROM	TO	
1893	19 (Conjunctival only)	Calomel alone			29 days.
1893	19 (Conjunctival only)	Yel. oxide salve alone			28 days.
1893	28 (Conjunctival only) whites.	Yellow salve and calomel			27 days.
1893	9 (Conjunctival only) negroes	Yellow salve and calomel			35 days.
1893	6 (Corneal only)	Yellow salve alone.			22 days.
1894	15	Calomel alone			26 days.
1894	9	Yellow salve alone			27 days.
1895	34	Calomel alone			14 days.
1895	23	Yellow salve alone			19 days.
1897	50	Yellow salve and calomel	5	240	25 days.
1898	50	Yellow salve and calomel	4	265	23 days.
1899	53	Yellow salve and calomel and mercury oxicyanide 1 to 2000			
1900	49	Yellow salve and calomel	17	153	17 days.
1901	5 (Whites)	Calomel alone	7	60	16 days.
1901	1 (White)	Calomel and Hg. Cl ₂ wash 1 to 5000	3	23	11 3/4 days.
1901	18 (Negroes)	Calomel alone.			8 days.
1901	1 (Negro)	Yellow salve alone	3	32	10 7/18 days.
1901	1 (Negro)	Yellow salve and Hg. Cl ₂ , 1 to 5000			13 days.
1902	4 (Whites)	Calomel alone	6	21	26 days.
1902	11 (Mulattoes)	Calomel alone	3	43	14 days.
1902	1 (Mulatto)	Calomel alone; destruction by perforation and prolapse in			16 days.
1902	14 (Negroes)	Calomel alone	3	43	39 days.
1902	1 (Negro)	Yellow salve alone			12 9/14 days.
10 Ys.	421				11 days.

TABLE II.
Local treatment only with mercurials and other agents.

YEAR	NUMBER OF CASES.	TREATMENT.	CURED IN		AVERAGE.
			FROM	TO	
1894	18 (Conjunctival only)	Mercurials and other agents.			28 days.
1894	13 (Conjunct. and corneal)	Mercurials and other agents.			29 days.
1894	15 (All cases conj. and corneal) white	Mercurials and other agents.			29 days.
1894	16 (Negroes)	Mercurials and other agents.			28 days.
1895	10 (Whites and negroes)	Mercurials and other agents.			17 days.
1901	2 (Whites)	Yellow salve and argt. nit. gr. iij. to ʒj.	14	16	15 days.
1901	3 (Negroes)	Calomel and atropin	21	119	64 days.
1901	2 (Negroes)	Calomel and argt. nit. gr. v to ʒj	11	28	19 days.
1902	1 (Mullatto)	Yellow salve and enzymol 25 per cent.			39 days.
1902	1 (Negro)	Calomel and enzymol 50 per cent.			46 days.
1902	1 (Negro)	Calomel and enzymol 50 per cent.; quit worse in.			50 days.
1902	1 (Negro)	Calomel and weak zinc wash.			43 days.
1902	1 (Negro)	Calomel, enzymol and argt. nit. gr. v to ʒj.			17 days.
1902	1 (Negro)	Calomel and borax-boracic wash.			20 days.
1902	1 (Negro)	Calomel and argt. nit. gr. v to ʒj.			49 days.

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In one, negro, case treated with calomel and zinc sulphate wash, gr. j. to ʒj, the latter was so irritating it had to be abandoned.

It is fair to say that atropin was only used, probably, in bad cases.

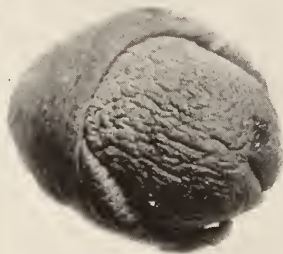
TABLE III.
Local treatment only without mercurials.

YEAR	NUMBER OF CASES.	TREATMENT.	CURED IN		AVERAGE.
			FROM	TO	
	All cases conj. and corneal.				
1901	1 (White)	Atropin and argt. nit. gr. iij to ʒj			15 days.
1901	1 (White)	Enzymol 3 per cent			18 days.
1901	3 (Negroes)	Argt. nit. gr. ss to iij to ʒj	5	11	8 days.
1901	2 (Negro)	Labarraques' solution 1 to 75	26	27	26½ days.
1901	1 (Negro)	Atropin and enzymol 25 per cent			35 days.
1901	1 (Negro)	Boracic wash			14 days.
1901	8 (Negroes)	Normal salt solution	5	15	9½ days.
	(One quit stationary in 15 days and one was so much worse in 26 days that treatment had to be changed.)				
1902	1 (White)	Atropin and boracic wash			3 days.
1902	1 (Negro)	Atropin and enzymol 12 per cent			24 days.
1902	1 (Negro)	50 per cent. enzymol			22 days.
1902	1 (Negro)	Borax was 9 days and then calomel 24 days; quit stationary after.			33 days.
1902	1 (Negro)	Enzymol 50 per cent. for 45 days and then calomel 29 days; was cured in total of			74 days.
	22				

In looking over these tables we are struck first by the great variation in the duration of the disease. Thus cases are found that were discharged cured after but three days of treatment, while others dragged along for from sixty to two hundred and sixty-five days. This lengthened duration seems to depend rather upon the number of cases treated on a certain plan than the drugs employed. That is to say if a sufficiently large number of cases be treated by any plan, a certain percentage of bad cases of long duration will be encountered. Thus in 1897, '98, '99 and 1900 groups of 50, 50, 53 and 49 cases contained many long cases, though the cases of short duration in the same group seem to bear flattering testimony to the treatment employed; while the average duration of the 202 cases, 25, 23, 17 and 16 days, compares favorably with that under any of the other plans of treatment. These cases were treated exclusively with yellow oxide salve and calomel, locally, a limited number being given a wash of oxycyanide of mercury (1 to 2000) a drug we were then trying. But that the drugs were not wholly responsible for the long duration of some cases or for the speedy termination of others, may be gathered by observing that a group of 18 (negro) cases treated in 1901 with calomel alone, recovered in from 3 to 32 days and the briefest average time, 10 and $7/18$ days, of any group of fair size; while a group of 3 (negro) cases treated in the same year with calomel, atropin being instilled once daily at the clinic probably on account of the angry look of the eyes, took 21, 52 and 119 days to recover. It will be noticed also that the average duration of cases treated locally with mercurials alone, and of those treated with mercurials together with other drugs, does not vary materially and may fairly be given as from 14 to 30 days. The same is true of the cases in which the natural course of the disease can not be supposed to have been affected by the agents employed. In eight apparently rather mild cases treated with instillations of normal salt solution alone 6 recovered in from 5 to 15 days, an average of $9\frac{1}{2}$ days. One severe case of *phlyctenule en plaque* (No. 3 of those illustrative of this variety) treated by the instillation of a single drop of a 50% solution of enzymol solution every day at the clinic, passed regularly through the several stages to recovery in 22 days. One given a 3% (!) solution of enzymol to be used freely

at home got well uneventfully in 18 days, and another who used a borax-boracic wash in the same way was "cured" in 14 days. Fuchs says the phlyctenule runs its course in from 8 to 14 days, and these results confirm me in the belief that the severity and duration of the attack depend upon constitutional causes and that we possess no local remedy capable of curing, in the true sense of the word. A single case (white) of medium severity, but of great persistence, has been enough to convince me that argyrol, to which I had looked with hope *a priori*, is without curative influence. Atropin I am sure has no greater value here than in any other inflammation of the eye. If there be ciliary hyperemia, or some secondary iritis, or if perforation be impending, it will be advisable to furl the iris and put the organ at rest. But its routine use is harmful; dilatation of the pupil adds to the discomfort of a patient already sufficiently distressed, and the drug long continued, especially if the solution be acid, is irritating to most conjunctiva. Nitrate of silver is useful only when catarrhal conjunctivitis persists after an attack of phlyctenular ophthalmia, but here the non-irritating argyrol may supplant it. Zinc sulphate solutions appear to be especially irritating and noxious. On the other hand the weight of evidence seems to affirm that calomel lightly dusted upon the conjunctiva does exert a favorable influence upon the course of this disease. For though the mild cases recover under any soothing local application, we see bad cases, that having persisted under a negative or expectant plan, take a favorable turn and get well when this drug is insufflated. For instance, a negro girl treated for 45 days with weak enzymol solutions alone, grew so much worse that the treatment had to be abandoned. Calomel alone was then used and in 29 days she was discharged cured. But too much store must not be laid by such instances. At the same time another negro who had grown worse under borax-boracic wash, was put upon calomel alone for 24 days, at the end of which time he quit quite stationary.

Calomel lightly dusted upon the everted lower lid with a camel's hair brush seems to me preferable to the yellow oxide of mercury salve. It is easy to apply and comes readily into contact with the conjunctiva, while the salve is difficult to apply to the wet conjunctiva and floating upon the tears is readily squeezed out by the



*CLITORIS, Life-Size
REMOVED BY
DR. C. L. HOPE.*

action of the lids. In using calomel the powder should be pure and dry and must not be used so abundantly as to lead to its agglomeration in the conjunctival sac with the consequent production of an eschar.

Finally, although this duty may not be exhilarating, I hope it may help to show how prone we are to found our therapeutics too much upon general impressions and too little upon experiment.

Clinical Report.

Report of a Case of an *Hermaphrodite*.*

By C. L. HOPE, M. D., President Morehouse Medical Society, Oak Ridge, La.

This is a case in which you can come as near leaving off the word "pseudo" as I have ever heard of.

About the only thing lacking to make it a perfect penis is the urethral canal.

This patient was to all outward appearances a woman; feminine, but stout, weighing about 150 pounds. The mammary glands were *fully* developed, being very large and full, but normal.

There was nothing on seeing her walk the streets that would in the least arouse your suspicions that there was anything abnormal about her.

She was about 16 years old and of the negro race.

On September 16, 1897, I was called to prescribe for her. From her answers to my questions I failed to make a diagnosis. On exposing her genitals to view I saw what I took to be the normal penis and scrotum of a man, naturally situated. The "penis" was about 2 inches long and a half-inch in diameter. It lay down between her thighs, reaching about half way the length of the scrotum.

On raising the clitoris, it looked as if the scrotum of a man had been incised 2-3 of the distance through the median line and the

* Read before Louisiana State Medical Society, April, 1903,

sides folded and glued down, leaving a closed pouch or sac at the lower end.

The incised scrotum folded in, formed the labia majora, in which there was very little muscular tissue. There were no signs of the labia minora.

The clitoris, when left in its natural position, lay over the split in the scrotum, leaving no mucous membrane exposed.

The clitoris had the erectile properties of a male penis. The patient stated that she had used it on girls when she was small, and up to the time that she became ashamed to let any one know that she was built that way. After that time she stated that she very frequently used friction on it, which produced a very pleasing sensation. I saw the clitoris erected. It had a rainbow curve downward, held down by the frenum, but stood out considerably from the body.

Upon raising the clitoris, or on its being erected, upon a closer examination I saw a very small opening, into which I tried to introduce my index finger and failed. I then anointed my little finger and succeeded in introducing it just about an inch.

In this examination I learned that the opening was the ostium vaginae; that the meatus urinarius was as it should be in a woman, and that the vagina was also there but very small.

On September 19, 1897, under chloroform anesthesia, assisted by Dr. J. E. Hope, of Collinston, La., I made an incision from the small opening under the clitoris to within about an inch and a quarter from the anus, finding the meatus urinarius and vagina as I thought on first examination.

The vaginal canal would hardly admit of my little finger. However by bi-manual manipulation I felt a very small, hard, uterus. I packed the incision that I had made full of 5% iodoform gauze, and kept it packed so that it would not grow together again until it healed; which it did in a very few days. On November 30, 1898, under chloroform anesthesia, assisted by Dr. W. R. Knoefull (now of Bonita, La.), I removed or amputated the clitoris, leaving a very small part. I thought that if I removed all of it that her passions would also be removed. She was having it removed so that

it would not be in the way in having sexual intercourse with a man, which she was very anxious to try. The small parts of the clitoris left in or on her retained their erectile power and she says that it now swells up under the skin during the act of coition.

After recovery from the last operation, she returned to me stating that after both my operations she was in no better condition than she was at first, as she had allowed a man to try to have sexual intercourse with her but he had totally failed to make an entrance. My first thoughts were to enlarge the vaginal canal and that it would have to be another cutting operation, but accidentally seeing on my safe a very small bivalve rectal speculum, the old saying about tearing and stretching, came into my mind, so I placed her on my table and succeeded in introducing the speculum into the vagina about one and one-half inches, pushing it inward and upward and pressing on the handles so as to lengthen and enlarge the canal. I instructed the mother in the use of the instrument and allowed her to carry it home with her.

She returned in about 10 days in the highest of spirits stating that she was all right and said that she was ready to marry a man, which she did in a few months. But just a few days before her marriage she came again for my speculum which was returned in two or three days.

She menstruated before I saw her and has continued to menstruate since the operation and after marriage, but has never been pregnant.

Her menstrual pains were not nearly so bad after the operations.

Her mother claims to have been very badly frightened at a snake while this girl was in utero.

Her father and mother are both normal specimens of their kind and their other children are healthy and normal so far as I can learn.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. E. J. GRANER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING, JUNE 13, 1903.

DR. E. J. GRANER in the Chair.

DR. M. FEINGOLD read a paper on

“Foreign Bodies in and Injuries to the Anterior Portion of the Eye; Cases from Practice.”

In looking around for a title to this paper, I endeavored to convey the idea in the program that I did not intend to tire you with a lecture, that you could read with greater comfort and more benefit in any text book. That is why I appended to the title “Cases from Practice,” and gleanings from practice it is to be.

I shall try to classify my cases as much as possible anatomically, and, where it is not possible, etiologically, and give you my experience in each class or case and will therefore omit all other possible foreign bodies and injuries that I did not meet with.

To begin with the lids, although not *strictu sensu* the anterior portion of the eye, I shall pass the contusions and subsequent suffusions commonly called “black eye” frequently caused by domestic trouble or the result of a good time at the corner grocery. They are too numerous and simple and our treatment consists, as you well know, in rest and cold applications. Quite serious disfigurement and more serious injuries are produced by powder explosions. Christmas, New Year’s and the Fourth of July are usually the times that bring a number of these unfortunate cases to our offices. In spite of the fact that hydrogen peroxide has been so much praised for the removal of powder stains, I must confess, in my hands this treatment has given no benefit.

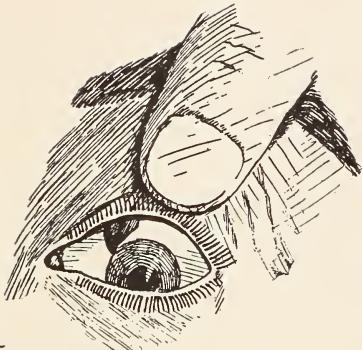
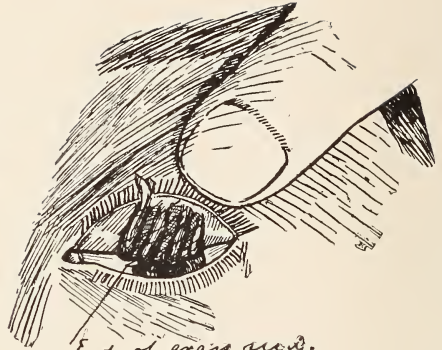


Fig 1



End of grass used.
Fig 2.



Fig. 3.

ILLUSTRATING DR. FEINGOLD'S PAPER.

Another form of injuries by fire is caused by explosions of the gas and gasoline stoves. The cook will usually appear at the hospital with lashes and eye-brows more or less singed and with some burns of first and second degree on the lids. A few days treatment with some salve or other will relieve all trouble.

Lacerated and cut wounds of the lids are not very numerous and it is rather interesting to see what a clean wound will be produced by a dull force directed against the *margo-orbitalis superior*. They belong in the same class of wounds of skin directly covering the bone. A real cut wound of the eyelids I saw two years ago when a butcher boy presented himself with a cut of the lower lid 1 *c. m.* long, all through the thickness of the lower lid and a smaller one about 3 *m. m.* long through the skin only on the upper lid. As the accident had happened about four hours previous and the boy's face was in a rather filthy condition I was afraid of the result; nevertheless, I sewed skin and conjunctiva. To my surprise the wound healed so well that when I saw him a year after, there was only a very small scar visible and no deformity had resulted.

Leaving the lids, the most frequent foreign body found in the anterior portion of the eye are cinders from railroad engines, dust and sand. They usually lodge in the *sulcus subtarsalis* and the simple eversion of the upper lid will allow the removal of the little offender and in almost every instance the patient will astonishingly remark, "is that all, that little fellow felt like a house."

As *curiosa* I would mention a piece of a match about four *m. m.* long that had been in the superior fornix of the right eye of an electrician for four days, remarkably giving very little symptoms.

In another case of a boy of twelve years, who presented himself at the Touro for treatment, I found what at first looked like a piece of phlegm covering the left cornea in the opening of the lid. On closer inspection this turned out to be soft pale granulation tissue that would move with the upper lid (Fig. 1). The everted upper lid showed on the tarsal portion a mass of granulation tissue about 1 *c. m.* broad from the lower end of which the curtain-like projection above mentioned extended. In following it up into the upper *cul de sac* there projected from the mass of granulation the end of a grass seed (Fig. 2). The inquiry brought out that while

hunting for fire flies in the grass three months ago the boy had gotten the seed in the eye. The whole granulating mass was attached by fibrinous threads only to the underlying normal mucous membrane and only in the fornix was it really entering the mucous membrane; here the whole mass, with seed embedded, had to be removed by clipping off with scissors. Microscopical examination showed the tumor to be a true granuloma with no trace of actinomycetes, although especially searched for.

In the conjunctiva bulbi foreign bodies are, as a rule, very rare and only few wings of minute insects stick to it by reason of their concavity thus acting like a suction cap. They are easily removed.

Of chemical caustics I saw two cases. The one, a patient whom I had treated for some corneal opacities with calomel inspersions after having ascertained that he had not taken iodine in any form. After he had stayed away from treatment for a while, I again one morning dusted calomel into his eye. In the afternoon he had a white, coagulated patch on the mucous membrane of the lower lid. At first I could not imagine what that was, until questioning brought out that he had been taking iodide of potash for the last three days. After a few days of painful suffering there was a perfect *restitutio ad integrum*.

The other case I saw a few weeks ago. A little boy of five years, playing with a bottle of ammonia, spilled it and got some of it in his right eye. I saw the child four hours after the accident. The status at that time showed some slight burning of the upper lid about 2 c. m. long and extensive chemosis of the conjunctiva bulbi, the superficial layers of which were coagulated white. The cornea appeared intact. The treatment consisted of instillations of castor oil and cocain and atropin collyrium, with the instruction to pull the lids away from the bulbus after each time applying the drops so as to prevent a symblepharon. All went well for the first four days, during which time I repeatedly removed croupous membranes from the conjunctiva of the lids. On the fifth day a grey infiltration in the lower inner quadrant of the cornea appeared over which area the epithelium was defective. I apprehended some trouble from this source, which luckily did not turn up. Applications of iodoform salve was practiced twice daily and after two

weeks' treatment the child could be discharged cured without any ill effects remaining behind.

Foreign bodies in the cornea are of rather ordinary occurrence.

First in frequency, come the pieces of emery and iron found in people employed in the iron industries, the employees of which have acquired a great dexterity in removing them. I would right here like to urge the adoption of some protecting goggle for laborers employed at the lathe, the grind stone and all other work where particles or chips of the material worked upon can enter the eye. Undoubtedly such a protective measure brings some inconvenience to the wearer and this is the reason they are so little worn, but again their use would result in a great saving of money and pain.

As easily as these foreign bodies are removed a little rust produced by the prolonged stay of iron in the cornea will give more inconvenience than the foreign body itself, in fact will necessitate a laying off from work until all the severe irritation has subsided. To illustrate this state I would only mention the case of a blacksmith from whose eye a physician friend had removed a piece of iron after it had been in the eye about twenty-four hours. As the irritation did not subside after the removal, the patient was turned over to me. I found a minute brown ring of rust around the defect in the epithelium where the foreign body had lodged. Thorough scraping away of the discolored portion relieved all irritation forever. In this connection I would draw your attention to researches made by Leber as to the causes of iridocyclitis produced by penetrating foreign bodies. He found that the chemical nature of the foreign body was responsible for the iridocyclitis in the way that iron and copper, which are soluble in the media to a certain extent, will cause that inflammation; while glass, of course when aseptic, will not produce it.

Other foreign bodies on the cornea are not as harmless as steel and emery, which usually reach the eye in an aseptic condition, by reason of the high temperature imparted to them by the same force, that makes these fly into the eye, an illustration of which I saw in a patient three years ago who had gotten some sawdust in his right eye, three days before he applied for treatment. At this time he had already the most serious outcome of such an accident: abscess of the cornea. The eye was lost in spite of all active treatment.

The most interesting foreign body in the cornea that came under my observation was a piece of wood in a gentleman's right cornea. He had been splitting wood that same morning. This piece or rather fibre of wood was no thicker than a very fine hair, and for the reason of having imbibed some moisture from the tears its refractive index had become so much like the cornea's that it was extremely difficult to see it. Accordingly the removal was very difficult. It was only about *mm.* $1\frac{1}{2}$ long and only a small part of it had been projecting over the surface of the cornea, by reason of its lightness and minute length it had evidently not penetrated deeper than the epithelium because no infiltration of the cornea resulted from it.

Powder grains in the cornea are of comparatively frequent occurrence at certain seasons of the year and I think prohibition of fireworks-shooting ought to be strictly enforced for this reason, even if it were not for the fact that the paper always report a number of fatalities the day after those national holidays. As a rule they are easily removed from the cornea, but occasionally we meet serious consequences of such an accident and we are confronted with the question, not so easily decided, whether it would be better to remove the powder grains or leave them in situ.

The following case will illustrate this question distinctly. A member of our local militia while performing last summer at West End received a full charge of powder in his face coming from a distance of about thirty feet. I saw him the next morning after he had been attended to in the Charity Hospital the night previous. The face and lids were swollen, chemosis of the conjunctiva and numerous powder grains in the conjunctiva bulbi and cornea of both eyes. I removed a number from the cornea, and so on the following two days. When he came to my office on the fourth day there was a hypopyon in the anterior chamber of the right eye. From this date on I desisted from picking out the remaining powder grains, especially since they had taken an oblique course into the substantia propria cornea, reasoning that it was better for vision to have a black mass, impenetrable for light, in the cornea than a translucent opacity with consequent circles of diffusion. At present he sees $\frac{5}{4.5}$ after proper correction with left eye. In the right eye he has a big floating opacity that prevents any

estimation of his visus. Whether this opacity is brought on by the iridocyclitis due to the active interference or due to some grains of powder that had penetrated the sclera in the ciliary region I am unable to decide.

Another accident of this region looked very serious at first, but ended in complete recovery.

While inflating his bicycle tires, a young man got a whole mass of rubber dust, from the bursting pneumatic tire, in his right eye. I saw him an hour after the accident and it was a most interesting sight to see. A whole galaxy of white particles of varying size were imbedded in the cornea. As it was impossible to remove each particle separately, I scraped, after cocainization, the whole cornea with the back of a cataract knife. Quite a number were removed this way but still enough were left. Antiseptic wash, cocain and atropin were prescribed. On examination the next morning the number of particles left had greatly diminished, so that I abstained from active measures. On the third day the eye was entirely without any irritation and remained so. The chief danger in this case was infection from street dust but as the force that led to the bursting of the tire had its point of attack on the inner side, everything that was within, rubber dust, was carried along by the escaping air. This, in connection with the fact that these particles have a very flat surface, thus offering a great resistance, and hereby preventing deeper penetration, is, in my opinion, responsible for the lucky ending.

We now come to a class of injuries of a far more serious nature, penetrating wounds of the cornea.

Pardon me, gentlemen, for a little sidetracking right here. I have abstained from theories and text book tone and tried to relate only personal experiences thus far and I hope you will excuse a little lecturing. Whenever I have to open an eye for cataract operation, I feel as you gentlemen do before an abdominal operation. The peritoneum is a delicate organ, so is the ciliary process, therefore almost everything is decided on the table. I say almost, because a few adhesions of the peritoneum although not pleasant for the wearer are of no serious consequences. A little irritation of the ciliary process, on the contrary, is of more serious consequence on account of possible exudation into the vitreous with its deleterious

results. This is the reason why the penetrating wounds of the cornea have such a bad prognosis.

The iris usually prolapses and the subsequent pull on the ciliary process will set up the dreaded inflammation. The cases I saw partly illustrate this course. As cutting instruments figure in my cases: scissors, pocket knife, butcher knife, butcher spike and piece of glass.

When we have a chance to see our patient shortly after the accident, the prognosis is far more favorable. We can cut away the prolapsed part of the iris and a thorough application of atropin will liberate the rest of iris from the lips of the wound and at once the prognosis becomes more favorable. The danger of infection in these cases is very much diminished by the outrushing aqueous humor in the moment of the accident. Three of my cases illustrate this statement splendidly. I shall mention only one:

Last October a boy of five years was amusing himself on the street by breaking some old glass with a hammer. Suddenly he felt something in his left eye. The druggist who was at once asked for advice, made the correct diagnosis and refused to prescribe anything.

An hour after the accident I saw the patient and finding a prolapse of the iris in the upper nasal quadrant I advised immediate operation, which was consented to.

The parents were instructed to apply atropin solution every 15 minutes until I would return with the instruments disinfected. Under chloroform narcosis, administered by the family physician, the prolapsed iris was pulled out as much as possible from the wound and cut close to the cornea. An abundant hemorrhage in the anterior chamber prevented any judgment as to the result. By next morning the hyphemia had almost entirely gone and a distinct coloboma of the iris with no trace of an anterior synechia indicated that the operation had been successful. The eye showed almost no irritation and remained so. Two weeks later the boy could be discharged cured with normal visus and only the necessary astigmatism of the cornea.

The coloboma of the iris and an H shaped scar in the cornea are the only traces indicating the serious accident. Ophthalmoscopic examination failed to detect any foreign body in the interior of the

eye. The piece of glass evidently had exhausted its propelling force after cutting the cornea and was easily washed away by the gush of the humor aqueous.

When the lens also is injured by the cutting instrument, the process is much more complicated. Traumatic cataract, secondary swelling, with subsequent secondary glaucoma give another source of plastic iridocyclitis. Patience and careful watching will lead these unfortunate cases to a complete recovery.

Many interesting details are presented by each case, but I shall not tire you by reading you the history of all my cases.

Contusions to the eyeball are of very frequent occurrence mostly ending in no consequent trouble except a slight ecchymosis, but not always so. I saw four cases of this latter kind. One I reported to the Society a few years ago of a man who was struck in the lower part of the eyeball by a rebounding chisel, which accident resulted in a rupture of the choroidea and retina in the upper half of the eye ball opposite the point of attack.

In another case I found as the cause of severe pain in the right eye of an old lady of 83 years a traumatic luxation of the cataractous lens. Three days previous she had knocked her head against the window sill and since that time the pain dated. During the operation for this condition, traumatic glaucoma, the lens escaped within its capsule. All the cause being removed I had all hope for a good result. But on changing the dressing next morning I found almost the whole contents of the eyeball squeezed out by the unruly patient during the night. It ended in the loss of the eye.

Four months ago a colored woman called at the Touro with the complaint that she could not see with the right eye. Superficial examination showed as cause glaucomatous atrophy of the optic nerve. Under careful dilation of the pupil by cocain the cause of the glaucoma was revealed: The lens was dislocated downward and history taken afterwards brought out that she had received a lick in her right eye three years ago.

The last case I have to report is in some respects similar to the two just mentioned.

Mrs. C. C. N. aged 45, presented, when she applied for treatment at the Touro, the picture I tried to sketch in the accompanying drawing (Fig. 3). She gave the following history: Nine

years ago she received a lick in the face by fist; face was bruised, left eye was closed 2 or 3 days, when it opened she could not notice anything wrong with it. But a week after it seemed as if something was gradually growing over the sight from the left to the right side. Ophthalmoscopic examination revealed high myopia about 17. o. D. in right eye and through the rest of the pupil in the left eye, also myopia but of a lesser degree, that could not be exactly estimated. This high myopia, with its resulting loose zonula together with the traumatism, explains to us the cause of the dislocation of the lens into the anterior chamber.

The interesting point in the case is the absolute impunity with which the eye bore the accident. Operation was consented to and I extracted the partially adherent and cataractous lens the next day. Although I anticipated some trouble on account of probable liquid state of the vitreous body, no prolapse of iris occurred and after 10 days the patient left for her home well, without giving me a chance to examine the vision of the operated eye.

I am at an end and would like to conclude with the German saying "*Kleine Ursachen, Grosse Wirkungen*," small causes, large effects.

DISCUSSION.

DR. BRUNS said that whenever the question of injury to the eyes was discussed, he thought it not amiss to reiterate, that terrible consequences might follow from small beginnings. All injuries of the eye, or around the eye, should be treated with the greatest care and asepsis. It had been laid down by the Germans that all injuries to the cornea should be treated with the same rigorous asepsis as should be exercised in injuries to the extremities. In his clinic at the Eye, Ear, Nose and Throat Hospital, it is a routine practice, after the removal of a foreign body from the cornea, to wash freely with enzymol in 50 per cent. strength, followed by argyrol in 20 per cent. solution and then to bandage the eye for 24 hours. He had found that these two agents are the best antiseptics for use in the eye and argyrol is absolutely non-irritating. The general practitioner, by remembering these simple procedures, would avoid some very large consequences from trivial beginnings. Passing to a more technical consideration of the subject, the doctor mentioned

that as he grew older and gained a larger experience, he had become less apprehensive of synechiæ, either anterior or posterior, and believed that they should be noticed only when causing trouble. Dr. Bruns mentioned a recent misfortune that had happened to one of his assistants while slitting a canaliculus with a delicate and slightly rusty knife. The tip of the knife broke off and remained in the upper part of the lachrymal sac. An effort made to extract the very fine point by means of forceps was unsuccessful. Finally the plan of putting a pair of fine curved forceps to a Haab giant magnet, resulted in the prompt removal of the foreign body by its strong adherence to the magnetized forceps.

DR. PARHAM said he would refer to a case coming in the first category of Dr. Feingold's classification, those due to the corner grocery and domestic troubles, or injuries to the external parts about the eye. The case was that of a gentleman taking his first ride on a bicycle meeting with another in the same stage of learning. They made straight for each other, receiving almost the same kind of injury, a contused and lacerated wound above orbital ridge. Both were treated by having a few sutures introduced and covered by a collodion dressing. These cases were ordered to return for future treatment, but one of them, feeling no pain nor anything to remind him of the accident, failed to further consult the physician. This case, as a result of his neglect, terminated in pus gravitating into the orbital cavity and temporal fossa, dissecting up the periosteal covering and working its way back behind the eye and into the temporal fossa. When medical advice was summoned, about the fifth day, a large accumulation of pus in the fossa was relieved by an external incision and later the outer canthus was incised and a drainage tube introduced well back into the orbit. But the eye was destroyed by the suppuration. He mentioned this case to show how grave and unfortunate results would follow from neglect of these trivial wounds in the region of the eye. In all wounds near the orbital region it seemed to him that drainage should be provided for or in case an occlusive dressing was employed it should be looked at sufficiently often to prevent accidents due to retained infection.

DR. WILSON said that he had seen quite a number of burns of the conjunctiva from calomel at a time when no iodide was being given.

The tears being salty, they combined with the calomel and would often produce a burn, particularly so if the calomel was used in such quantity as to cake within the lower lid.

DR. FEINGOLD, in closing the discussion, said that Dr. Bruns was correct in saying that synechiæ were not as dreadful as supposed to be, but he had special reference to the ciliary body, which he compared in his paper to the peritoneum. Dr. Parham, in mentioning his two cases, suggested to Dr. Feingold two similar cases that he had purposely omitted from his paper. The first case was that of a gentleman who, when thrown from his horse, sustained an injury to the temporal orbital region, which healed in six days and from which the patient suffered no further trouble. Five months afterwards, when the gentleman consulted him, he found an enophthalmus on that side. The second case was that of a lady who, when buggy riding two years ago, sustained an orbital injury, with subsequent blackening, which resulted in an abscess forming under the periosteum and secondarily dislocating the trochlea of the obliquus superior muscle, thus resulting in quasi paresis of the superior oblique. Referring to calomel as an irritant, the doctor insisted that it was only when iodine in any form was entering the system that he observed any caustic effect.

DR. KING, under the head of relation of cases, showed the Society *a small bullet* that he had *removed from the median line in the pharynx* of a male 69 years of age. The bullet was very superficial and was easily extracted from its bed, where it had been encysted since the patient was a boy six years of age, he receiving at that time a wound just beneath the zygomatic arch, the bullet taking a downward and inner course, lodging beneath the mucous membrane of the posterior pharyngeal wall. Although in this exposed position, the bullet gave rise to no discomfort and the patient was unaware of its presence until told.

DR. JACOBY reported

A Case of Cryptorchism.

My reason for bringing this case before you has been actuated by the fact that it is both a rare condition and one associated with hernia, which is frequently its complication. For Langdon in his Bradshaw lectures stated that in a careful examination of the

histories of 7,661 males who were the subjects of hernia, with especial reference to the condition of the testis, he found 174 of these cases associated with misplaced testis. The hernia is called interstitial, because it is situated within the abdominal muscular walls, usually in the patent vaginal process, within which is found a fully developed testis.

Langdon thinks that the accessory prolongations of the gubernaculum which sometimes pass to the saphenous fascia over Scarpa's triangle, more rarely into the perineum, produces malposition of the testis. Bryant and Walker believe that it is due to a shortening of the cremaster muscle or fascia.

The patient, a colored male, just presented before you, a laborer by occupation, aged 24 years, has been married for five years. He has always been healthy, and only has had trouble with his affliction once, when he developed an orchitis on the right side, which became well under treatment. His wife has had no children nor miscarriages. He states that he has six brothers and two sisters, all of whom are healthy and without any deformity except one, a brother twelve years old. This brother was born with the same condition, but the testicle on the left side descended into the scrotum a few years ago. He further relates that he has erections and on copulation has emission, besides, in his own words, he is very "passionate."

The testicle on the right side can be well felt, but on the left, in which he has a direct inguinal hernia, it is difficult to determine its presence. He relates that while doing heavy work the hernia on the left side protrudes and becomes exceedingly painful and sensitive, but subsides without any special treatment.

The question arises as to what course should be pursued in these cases. In the first place it is the duty of the practitioner to have these cases operated upon between the ages of 10 and 13 years. However, in the meanwhile gradual pressure upon the testis downwards may be tried in the hope that they may be pushed into the scrotum. But, as to a case of this kind, a question as to removal of the testis may occur, especially when operating for the radical cure of the hernia. This, however, should not be countenanced under any condition in a man of this age. But, any of the

operative procedures for replacement of the testis into the scrotum, especially that of Dr. Bevan, may be followed.

Dr. Bevan, of Chicago, advocates the stretching of the cord until the testicle can be safely placed into the scrotum, without any danger of its retraction. In order to do this, he first ligates and cuts all the vessels of the cord.

It is claimed by some that the testis should be removed, as in this region they are liable to much traumatism and malignant change. This seems, however, to be a general error, as proved both by Coley, of New York, and Langdon, in his Bradshaw lectures. Instead, these two, as well as Championniere, insist on the preservation of the testis, and the weight of opinion, according to Coley, is that the testis, though atrophied and possibly without functional power, nevertheless plays an important role in the development of the man and should not be sacrificed without very strong reasons. He had operated upon thirty cases of undescended or partially descended testis associated with hernia, 14 cases between the age of ten and fourteen years, one case 21 years. The testis was not removed in a single instance. Coley further states that he must agree with Langdon as to the chances of malignant change of the retained testis, for he has never seen a case in eleven years in the Hospital for the Ruptured and Crippled in New York, and in 16 cases which he observed the malignant disease in every instance occurred in a fully descended testicle.

The conclusions to be drawn, therefore, from the latest on the subject, is that we should preserve the testis and attempt to bring them down into the scrotum at any age, and especially between the ages of 10 and 13 years. (References: *Progressive Medicine*, June, 1900; *Annals of Surgery*, 1901, Vol. 34, p. 297).

DR. JACOBY showed the case to a few members of the Society after adjournment, the patient at that time re-appearing, having suddenly departed at the time the paper was being read.

DR. GESSNER mentioned to the Society a case which had recently come under his observation, in which *two distinct chancres had developed simultaneously*, one near the frenum, the other in the prepuce at a point diametrically opposite where contact with the first could not have been the cause. Both of the sores were hard, with superficial excavations, covered with a grayish pellicle.

Gradually bilateral inguinal adenitis developed, followed later by general adenopathy. The characteristic roseolar rash later appeared on the abdomen, back and limbs. The doctor felt that the case warranted mention, owing to the rarity of the true multiple chancre.

Miscellany.

THE BUSINESS OF MEDICAL JOURNALS. —If every medical periodical in our great country would attend strictly to the subscription end of the business, the benefits arising therefrom would be exceedingly great. The chronic dead beat would be eliminated, the careless and negligent among those disposed to be honest would be brought up to the point of systematically remitting for the magazine that they really want, refusing all others, while the prompt and reliable portion of the profession would be served with better journals, because the promptly-paid editor and publisher could afford to give better service. Also, advertisers would find that their announcements would “hit the mark” better than in the present condition of conglomerateness.

We have two constituencies to serve; our subscribers and our advertisers. These constituencies can best be served separately and distinctly, neither being allowed to trespass upon the rights of the other. Subscribers have been long sufferers in this respect, the reverse of which would not be tolerated for a moment. For example, say to an advertiser that you want to use half of his page for reading matter, at the same time charging him for his full page. Would he consent? Yet he wants to trespass on the rights of subscribers whenever he asks for the publication of clinical reports in the reading matter. This extensive transgression upon the rights of subscribers is one reason for the laxity in the payment of subscriptions, and in the efforts to collect them. Let us keep the two services rigorously distinct, and practice as strict business methods in collecting subscription accounts as we do in the collection of advertising accounts.—DR. TAYLOR—*Med. World.*

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Journal of the American Medical Association on Trial.

We have noticed several editorial comments on the methods of the *Journal of the A. M. A.*, and as most of these have a common object, it is perhaps timely that we should in turn pass some remark upon the motive and principle involved. We have persuaded ourselves that the purposes of the American Medical Association are first and above all to organize the medical profession in the United States, and secondly, to create a scientific and fraternal spirit to the end that each individual may profit professionally and materially by his connection. To further these objects a plan of organization has been evolved, and a *Journal* has been brought to a full growth. The questions arise, are the representatives conducting the business of the Association fulfilling their exact office in the methods employed, and is the *Journal of the A. M. A.* the official organ of the A. M. A., or is it a business enterprise, intended to amass funds which are not *necessary* to the purposes of the said Association? Criticisms call attention to the fact that subscribers are solicited and advertising obtained beyond the needs of the Association, and to the detriment of other journals, legitimately serving local divisions of the A. M. A., and entitled to the right to live and thrive.

These questions are serious and they promise much of disquietude for the integrity of the Association unless they are fully and freely answered by those responsible for their existence, the managers of the *Journal of the A. M. A.* and their advisers.

The provincial, or local journal, is going to fulfill its object, and we do not believe that the *Journal of the A. M. A.* is going to develop into the octopus, but we believe that every journal with

its following has the right to discuss the method of the administration of the funds of the A. M. A., and if even one element of progress is influenced, that should weigh for something.

Let the Association *Journal* answer these questions:

1. What are the necessary expenses of the Association?
2. What are the necessary expenses of the *Journal*?
3. What is the actual income from members of the Association?
4. What is the actual income from subscribers not members?
5. What is the actual income from advertisements in the *Journal*?
6. What disposition is made of the balance of the funds?
7. Why does the Association enter into competition with other medical *Journals*, if it is not necessary and may do harm?

National Bureau of Medicines and Foods.

The joint Committee of the American Medical Association and the American Pharmaceutical Association have presented a plan for establishing a National Bureau of Medicines and Foods. This proposes actually to assay proprietary preparations, regular stock drugs, etc., for the benefit directly of the participants in the Bureau, members of the two Associations and others, and indirectly for the public. A regular incorporation is designed and a legal status thereby. The standardization of current drugs and the prevention of adulteration or impurity of drugs is aimed at. Nostrums are not to be entertained, and only such preparations as are made and sold by reliable manufacturers.

The whole scope, as far as it goes, is worthy, but we cannot resist the inclination to say a few words anent the anomalous conditions attending the basis of the movement.

The American Pharmaceutical Association is made up of druggists and manufacturers of drugs. The revenue of each is largely governed by the sale of proprietary medicines. No druggist refuses to sell nostrums and patent medicines, the constituents of which are absolutely unknown to him. Flagrant pretensions to the cure of certain ills are claimed by such nostrums. More than this, nearly every druggist in the wholesale or retail trade systematically

prepares and sells cures for rheumatism, coughs, colds, headaches, biliousness, etc., exactly of the same irresponsible and audacious pretensions as the patent medicine, and compounded with as little conscience—the sole object being to sell it, letting the victim discover the inefficacy, if he can, or will.

Consistency is indeed a virtue, and the lack of it is so flagrantly patent in the assumption of a right to devise a plan for pure drugs among those who sell fraudulent ones, that it calls for pause.

If the clause, "Do you make or sell secret or patent medicines, or compounds, claiming to cure any certain disease?" were instituted as a prerequisite to membership in the American Pharmaceutical Association, how large a proportion of the present membership would rest?

The Charity Hospital Staff.

We have noted the recent resignation of the late house surgeon of Charity Hospital and it has occasioned considerable thought upon the administration of this institution so dear to most of the men in the City of New Orleans who practice medicine. In spite of the faults we are proud of her glory and the good work done in the past.

It is from this feeling as the chief motive that we justify our privilege to a voice in the discussion of the future. Here and there in the few years past we have uttered some word regarding the system of creating the house staff of Charity Hospital and as yet have noticed little fruit.

It seems to us that the time has come to consider some radical disposition of so vast a factor in the development of the medical profession of this city, state and section. The importance of New Orleans as a medical center, the growth of the hospital itself and the necessity for the exploitation of its good work demand a serious review of the present system of medical management and a calm discussion of whether it is the best way or not.

The Charity Hospital is alone in its plan of undergraduate medical service and of its subsidiary visiting staff. The method practiced has long since been abandoned by other first class hospitals in the large cities.

Hospital methods have improved in recent years and the privileges of hospital service command a higher grade in the quality of its dispensers than formerly, to such a degree that almost every hospital in New York and other large cities enjoys the distinction of picked medical graduates in its indoor management.

We realize that so long as the management of the hospital itself rests upon political administration, under a system of patronage, it will be difficult to make any changes either radical or iconoclastic, even if full of good and pregnant of a better hospital service in the end.

Charity Hospital should be served by the best staff to be had by competitive examination. Instead of an appointive house staff of three, selected because of their political preferment, ability not necessarily considered, together with an aggregation of ungraduates lacking experience and training, the staff should be graded and made up of a complement of graduate physicians, Tulane preferred. We are bold enough to say that, while the student who serves for two years in Charity Hospital leaves with an excellent training, he has profited far more than has the hospital by his experience.

As at present constituted, a graded service is only in theory and the great work of the hospital finds its way by occasion into the field of medicine, when some member of the visiting staff sees fit to publish his work in a particular line. The annual reports carry only the bare facts of a vast work and the detail is buried in a neglected, because unappreciated, record. With some twenty or more medical graduates, qualified at the start to accept the service, these things would be different. Divisions of junior, senior and house surgeons and physicians would soon relegate each part of a systematic service to its proper place and in each department a better atmosphere of progress would prevail, in the place of that which now must itself speak for the relics of a primitive plan, borrowed from an old time and now abandoned French vogue.

The crisis is here; Charity Hospital has had good, even excellent house surgeons, and it may again have, but is it fair to the public who support it, fair to the physicians who maintain it, fair to the profession that honors it, that there should be forever at Charity Hospital a sinecure, fixed by political rule, colored by imputed

motives, when a higher, better, practicable plan is open and which in every other civilized community of the size of New Orleans has been followed?

The recent action of the Board of Administrators deciding to limit hereafter the term of the House Surgeon to six years and their determination to elect henceforth the second assistant House Surgeon after competitive examination is very gratifying and in line with the changes and improvements which we are suggesting. In order that the Board's resolutions may be of practical and lasting benefit, it will be necessary to obtain legislative action to that effect as, otherwise, any subsequent resolutions of this or any other successive Board might wipe away the advantage gained. We are pleased to hear that it is the intention of the present Board to request the necessary action on the part of the State Legislature. We would advise these gentlemen who have at heart, we are well aware, only the good and the progress of the noble institution they direct, that it would be advisable to secure at the same time the legislation necessary to make the changes we have suggested above respecting the internes. The present status, we believe, is fixed by law consequently the Board would not have the authority to make the alteration otherwise.

Dr. Jefferson D. Bloom.

After a long term as a resident surgeon of the Charity Hospital, first as assistant and then as House Surgeon, Dr. Bloom has recently resigned his post. Invariably courteous and helpful to the visiting staff, a competent surgeon and a good friend, we can not but regret the severance of his connection with Old Charity. We have previously expressed our opinion in favor of limiting the term of the House Surgeon, but this opinion has never been personal as far as Dr. Bloom is concerned; in fact, we have urged this matter less forcibly than we otherwise would have done in order that it might not be interpreted by any possibility as a move against Dr. Bloom. We have had and have still only the highest consideration for his professional skill and good qualities. He has our appreciative thanks for courtesies extended and our good wishes for his continued success in whatever he may decide to undertake.

The Mosquito Destroyer.

We now read that Dr. Stiles, of the Public Health and Marine Hospital Service, has discovered a parasite which he has named the *agamomermis culicis* and which is a successful destroyer of mosquitoes. It is supposed that these parasites can be propagated in numbers sufficient to infest marshes and ponds and other breeding places of mosquitoes so as to finally exterminate the latter.

It seems to us that the possibilities for evil of this newly isolated parasite should be carefully studied and observed before its general introduction. At the same time it might not be out of the way to begin hunting for the parasite that can destroy the *agamomermis culicis* in case it turns out to be troublesome hereafter.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

In charge of DR. F. W. PARHAM, assisted by DR. F. LARUE, New Orleans.

SHOULDER-JOINT DISARTICULATION FOLLOWING HORSE-BITE!¹
 PREVENTIVE INJECTION OF ANTITETANIC SERUM. ATTENUATED
 LOCK-JAW TREATED WITH CHLORAL AND VENESECTION. RECOVERY.
 —Mr. Mauclaire, in *Revue de Chirurgie* for May, 1903, reports
 from Mr. Bazy to the Paris *Société de Chirurgie* the case of a man
 whom he had treated for a fracture of both bones of the forearm
 caused by a horse-bite and complicated with extensive lymphan-
 gitis.

Deep incisions were made with the thermo-cautery and at the
 same time an injection of antitetanic serum was given.

On account of the aggravated local condition, shoulder-joint
 disarticulation was performed six days after the accident.

Seventeen days after the horse-bite, tetanic symptoms, trismus and opisthotonos, set in.

Another injection of antitetanic serum was given; large doses of chloral were administered; blood-letting was also resorted to.

After a slight increase in the symptoms abatement followed and the patient recovered. The tetanic attack had lasted 25 days.

Mr. Mauclairé expressed the opinion that the preventive injection of serum may have attenuated the tetanus, cured, otherwise, by the increasing massive doses of chloral and blood-letting.

THE SURGICAL TREATMENT OF VULVULAR AND ANAL PRURITUS.—Mr. Rochet, in *Revue de Chirurgie* (May, 1903), reported to the *Société de Chirurgie* of Lyons cases of aggravated ano-genital pruritus, or as he terms the condition, a true perineal dermal neurosis.

In woman the pruritus extends into the vagina and even into the urethra. On examining, nothing is seen but perhaps at times a thickening of the skin, which is rough, lichenoid, without any vesicles or papules. Cauterizations and local scarifications, which are recommended, were tried without avail. One of the patients had been in Guyon's surgical ward in Paris and also in Spillman's at Nancy.

Life had become unbearable. Another patient had become addicted to narcotics and was very despondent. Eneuvation of the painful area was proposed.

On the female patient he simply resected the internal pudic nerve; this was done in 1899; relief has been completely permanent.

In the male patient he avoided the posterior branch of the pudic nerve but cut the perineal branch of the lesser sciatic, the cutaneous anal nerve. These multiple sections gave excellent results.

Last year, Mr. Tavel (of Rome) said he had followed this form of treatment by exposing and tearing away the different nerve filaments of the perineum.

Mr. Rochet believes that the severing of the pudic at the inner surface of the ischium with eradication of the two large branches is sufficient.

The operation is very quickly done by a single curvilinear incision around the ischium.

SOME RECENT METHODS OF INTESTINAL ANASTOMOSIS.—George Gray Ward, Jr., gives in a recent number of the *Medical Record* a brief resumé of the subject of intestinal anastomosis from the historical point of view, and divides the many methods into three classes :

1. Where a foreign body is placed in the lumen of the bowel to facilitate accurate approximation, with or without suturing. This class includes the many devices suggested from the time of the Four Masters down to the present day, such as goose trachea, rings potato, chromatinized gelatin, tallow, raw hide, rubber, cardboard and cork, and lastly, most ingenious and popular of all yet described, the Murphy Button, and Harrington's Segmented Ring.

2. In this class belong all the stitch methods without mechanical aids, including the interrupted and the continuous sutures with their many modifications; here belong the Maunsell method and the more recently described Connell suture, which latter especially must ultimately come into more general favor.

3. The methods wherein mechanical devices are used to facilitate the placing of the sutures and are then withdrawn. In this class are to be noticed the inflatable and collapsible bulb of Halsted and the great variety of forceps suggested by Mudd, Grant, Morrison, Lee, Laplace and O'Hara.

Of the three classes he selects one from each as worthy of special commendation, namely, the Harrington segmented ring, the Connell suture and the O'Hara forceps. These all have special points of excellence and each is to be preferred in its class. Thus, the Harrington ring is to be preferred to the Murphy button, the best hitherto devised in its class, because it is readily broken up into four segments, which naturally pass out with greater facility and certainty than the button, takes up no more room when shape and yet has a much larger lumen and is very much lighter; the Connell suture is superior to the Maunsell because no longitudinal slit is required and the knots are all buried within the lumen of the bowel; and, finally, the O'Hara forceps have decided ad-

vantages over all other apparatus in their class and perhaps over any of the other classes, because only one size is needed for all cases, they are very easy of application, they serve at the same time as clamps and avoid contamination from the interior of the gut by never necessitating the exposure of the lumen during the whole operation. These are important advantages of the last named instrument, but they all have some characteristics which commend them to the surgeon who may wish to be slave to no singular apparatus. One should make himself master particularly of the Connell suture because this requires no special apparatus, only a needle and thread being needed for the most complicated procedure in intestinal procedure.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, assisted by DR. C. J. MILLER, New Orleans.

ACCIDENTAL PERFORATION OF THE UTERUS.—Abram Brothers (*American Gynecology*, April, 1903), mentions the frequent occurrence of this condition, and reports several cases occurring in the hands of midwives, professional abortionists and ignorant persons generally, in the effort to interrupt pregnancy, are frequently seen by physicians connected with public hospitals, consultants in gynecology and the medical assistants in the coroner's office. But the majority of cases which occur in the course of legitimate work and in the hands of honest practitioners of medicine never see the light of day because of the fear of criminal prosecution, or, at least, of public ridicule, even cases which do not go on to fatal termination.

As a matter of course and fact, the author is convinced that it is the rare exception that uterine perforation ends fatally. In the treatment of these most unfortunate cases we must consider them in groups or sets. The first set of these cases are those in which, during the passage of the sound or curette, the uterus is perforated.

These cases will usually get well if manipulations are immediately stopped and no irrigation employed. If the uterus has been injured and the operator has irrigated the uterine cavity three sets of conditions may arise. In the first set a mild peritonitis (local) may call for nothing more than the same line of treatment. In the second set an acute septic peritonitis may call for an immediate hysterectomy (usually vaginal) with drainage per vaginam. The third set may be less virulent and more chronic. They are apt to terminate in localized abscesses, which may be located in the pelvic tissues or in the pelvic peritoneum. The operation in the majority of these cases will be in the nature of an exploratory laparotomy. In those cases in which the uterus has been injured and the intestine has been dragged through the wound, laparotomy must be done as early as possible. If the strangulation has been fatal to the viability of the gut, it must be exsected at once. The uterus may then, according to the judgment of the operator, be repaired or removed. Miquel reports five such cases, which were not fatal; hysterectomy, and curettage should be less resorted to in the large proportion of these cases and recovery will be increased in percentage ratio.

HYDATIFORM MOLE.—In the *Am. Jour. Med. Sci.* for March, Palmer Findley presents an instructive article on this subject. He states that nothing definite is known of the cause of moles. They are most frequent between the ages of twenty and thirty years, and are two and one-half times as frequent in multipara as in primipara. The weight of evidence points to its maternal origin, the vascular degeneration of the chorionic villi resulting from a disturbed maternal circulation. Failure of circulation causes degeneration of the connective tissue stroma of the villi and serous infiltration. The syncytium and Langhan's cells penetrate deeper into the decidua, which explains the unusual proliferation of these epithelial elements in hydatiform mole. No proof exists that cystic degeneration of the ovaries has any influence upon cystic degeneration of the ovum. Malignant degeneration of moles occur in about 16 per cent of all cases. No sharp line can be drawn between benign and malignant hydatiform moles, syncytial invasion of the connective tissue stroma of the villi and of the uterine musculature occurs under normal conditions, and can not be regarded in hydatiform

mole as evidence of malignancy unless found to a marked degree. It follows that macroscopic and microscopic examination of discharged vesicles will not determine the benign or malignant nature of a mole. The length of time a mole remains in utero does not influence its disposition to take on malignancy. The diagnosis can not be made without seeing the vesicles; these are seldom expelled until abortion is in progress. The most constant clinical evidence is the rapid development of the uterus, irregular in shape and consistency. To avoid malignancy our only safeguard lies in early recognition and immediate removal. Ergot and vaginal tamponade will control the hemorrhage and often excite the uterus to expel the mole.

The curette should not be employed. After the expulsion of the mole always explore the uterus with the finger, irrigate and pack with antiseptic gauze. Two weeks after the birth of a mole, curette the uterus and examine the scrapings for syncytial invasion, and if found in the act of proliferating, hysterectomy should be done. Watch the patient for three years after the expulsion of the mole. If uterine hemorrhage occurs curette and examine the scrapings microscopically. All new growth in the vagina and lungs are to be regarded with suspicion. The maternal mortality in hydatiform mole is twenty-five per cent. It is the exception for more than one mole to develop.

Department of General Medicine.

In charge of DR. E. M. DUPAQUIER, New Orleans.

ACTION OF VACCINATION ON WHOOPING-COUGH.—Facts have been published recently going to show that vaccination could in certain cases cause an arrest and even a complete cure of whooping cough. Up to the present time, the use of sera against whooping cough, repeatedly experimented with, has failed namely Dr. Leuriaux's special serum and the antidiphtheritic serum.

Dr. Pochon recalls in the *Revue des Maladies de l'enfance* that Violi, in Constantinople, following the example set by other Italians gathered on cows at the time of vaccinal eruption. On the other hand, in 1901, Dr. Hervieux presented before the *Academie de Médecine*, in the name of Dr. Dietrich, the medical attendant of the colony at Michelot (Algeria) a very interesting report on the curative influence of vaccination on whooping cough.

Dr. Dietrich had, in spite of the parents' objections, succeeded in vaccinating in a village, a dozen of children suffering from whooping cough, in the period of spasmodic cough or paroxysmic. At the same time 29 children of the same locality who had not yet had whooping cough, were also vaccinated.

After eleven days, of 12 children vaccinated during the course of whooping cough, three were completely cured, seven markedly improved, two only showed no betterment. Regarding those who were vaccinated when not yet having whooping cough, 24 out of 29 had not contracted whooping cough, three caught it, two had left the village eight days before Dr. Dietrich's departure, but they showed no sign of infection at the time.

The author concludes from these facts:

1st. That vaccination seemed to have exercised a curative action on whooping cough.

2d. That it seemed to have had an immunizing action.

The occasion for employing the method is rare since children usually contract whooping cough at an age when they have already been vaccinated, a long time previous. Yet, Dr. Pochon has observed a demonstrative case in a child aged 5 months, having paroxysms every 15 minutes, a very serious state of affairs, indeed.

Under the influence of vaccine, the paroxysms decreased most obviously, while the pulmonary congestion retroceded rapidly.

But the most interesting part of this observation, notes being taken down, day after day, it might be said hourly, was the fact that the number of paroxysms decreased as the evolution of the vaccine proceeded. It must be added that the fever and the "malaise" produced by the vaccine caused no ill effects, and at no time, even momentarily, seemed to aggravate the condition of the little patient.

The conclusion to reach perforce, is that in case of whooping

cough in a non-vaccinated child, vaccination should be practiced immediately and even re-vaccination should be performed in cases of vaccinated children.—*Journal de Médecine et de Chirurgie Pratiques*, May 10, 1903.

AN ALCOHOLIC'S RECORD.—A tavern keeper, a drunkard, had by his wife, a woman without apparent talent, always healthy, eleven children. Out of these two only are living, two girls, respectively 15 and 7 years old, equally enjoying usual good health.

The nine who died were all boys, respectively 3, 6, 4, 9, 8, 7, 7, 5, 4 years old. The one who died at nine was born blind and with an atrophied tongue. All died, from the mother's report, in the same manner, very rapidly, almost suddenly. After a few days of insignificant malaise, in some the urine becoming cloudy, they fell into coma with their eyes turned up and one hour later death came. So rapid was the evolution that the physicians called in, would always come too late. The identity in the manner of death in her nine boys is affirmed by the mother.

It is natural to attribute this peculiar death to a family disease of undetermined nature, and it is very probable that the cause of it is the father's alcoholism. A curious fact is that the girls only were spared.—DR. MAURICE PERRIN. *Annales de Médecine et de Chirurgie Infantiles*.

Department of the Ear, Nose and Throat.

In charge of A. W. DE ROALDES, M. D., and GORDON KING, M. D.,
New Orleans.

ARTIFICIAL OCCLUSION OF THE EUSTACHIAN TUBE AS A THERAPEUTIC MEASURE IN CHRONIC SUPPURATIVE OTITIS WITH DESTRUCTION OF THE DRUM MEMBRANE.—The author bases his observations on the plausible assertion that in cases of otitis media suppurativa of long duration, where a large perforation or complete destruction of the membrane exists, failure to effect a complete cure often is due to repeated infection of the cavity through the Eustachian tube. As the function of the tube is of no importance in such cases it is justifiable and even indicated, according to the

author, to bring about its permanent occlusion to cut off the source of infection in the naso-pharynx. To accomplish this result he resorts to the use of the galvano-cautery to produce a cicatricial occlusion at the mouth of the tube. A case is reported illustrating the effectiveness of the method when other means failed. The plan is well based and deserves further test.—E. V. SEGURA—*Annales des Maladies de l'Oreille, etc.*, May, 1903.

A CASE IN WHICH LARYNGEAL SYMPTOMS ACCOMPANIED PURPURA HEMORRHAGICA.—The patient, a man of forty-two years, ten days after being vaccinated developed a hemorrhagic rash upon the legs which also became swollen. Blood appeared in the stools and later in the urine. About seven weeks later the patient began to suffer with dyspnea and crowing respiration. Examination showed the larynx to be very red and stenosed. On the following day after vomiting blood, the breathing grew easier and the laryngeal mucous membrane was covered with fluid blood. Application of cocaine and adrenalin gave temporary relief but the hemorrhage recurred and the man died of exhaustion. The stenosis and bleeding was attributed to submucous hemorrhagic extravasation, as occurred under the skin on the legs.—JOS T. GIBB, M. D., *Journal of Laryngology*, Oct., 1902.

A RAPIDLY RECURRING "BLEEDING POLYP" OF THE NASAL SEPTUM APPEARING TWICE IN A WOMAN, EACH TIME AT THE SEVENTH MONTH OF PREGNANCY.—Jonathan Wright, in the *American Journal of the Medical Sciences*, reports a very interesting case of a woman, 25 years of age who came to him with a round vascular growth springing from the edge of a perforation in the nasal septum. The woman at that time was in the seventh month of pregnancy. Removal of the growth, which was considered a so-called "bleeding polyp," was followed by its rapid recurrence. About one year later the patient returned. It was again at the seventh month of pregnancy. The growth which had not given any trouble up to this time was seen to have returned. It was removed as before and recurred twice in rapid succession. Three weeks after delivery the tumor was again seen to be present but slowly became smaller and at the end of two months had practically disappeared.

Orleans Parish Medical Society Notes.

[Edited by the Publication Committee, Dr. S. M. D. Clark, Chairman, Drs. Jules Lazard and N. F. Thiberge.]

The Quarterly Meeting of July 11 was a pronounced success. The gathering was unusually large and every member seemed to enjoy the evening. The scientific work was dispensed with and the meeting was devoted mainly towards bringing the members in closer social contact and promoting good fellowship. The refreshments were of an inviting nature, were served in abundance and heartily enjoyed.

The social idea embodied in these quarterly meetings is unquestionably of benefit to the Society. It is offered as a suggestion for the future that members be permitted to invite any medical friend whom he thinks may be induced to become a member by bringing him in direct contact with the fellows of this organization. It is reasonable to suppose that a certain number of reputable physicians not now members can be reached in this way and by so doing medical organization in this Parish will be furthered.

The Treasurer's report for the quarter ending July 1 showed a balance on hand of \$515.

The Board of Directors voted to the Librarian \$100 for the purpose of purchasing the latest medical publications and text-books. The following are a few recent books ordered by the Librarian: Cheyne & Burchard's Surgical Treatment, in seven volumes; Bickham's Operative Surgery; Williams' Obstetrics; Pryor's Gynecology; Senn's Tumors (revised); Pusey & Caldwell on X-Rays; Hektoen-Riesman's Text-book of Pathology; Peterson and Haines' Legal Medicine and Toxicology; Jacobi's Therapeutics of Infancy and Childhood.

It is pleasing to see that the Library is being more frequently visited. The Library is one of the most attractive features of this Society; the opportunity for endless medical references is at hand, and it is only necessary for the members to grow more in the habit of utilizing this advantage. For the members who do not subscribe to the leading periodicals there is in our collection of 110 current medical publications an excellent opportunity for

these men to keep posted on the progress in the medical world. By getting into the habit of stopping at our quarters when going to and from the Hospital, a few moments of advantageous reading can not fail to prove of benefit.

The recently elected resident staff of the Charity Hospital are members of our Society. Heretofore the House Officers of the Hospital have taken but little or no interest in our Society's work and it is hoped that this new staff will affiliate more closely with us and let us derive the benefit of some of their large field of clinical observation. It is noticeable in reading the reports of other medical Societies, that the individual about whom a paper is written is frequently exhibited before the members. The members of the resident staff have a splendid opportunity to bring before us some of their most interesting cases, that are willing to consent to exhibition. It is sincerely hoped that in the near future we will see our recently honored members actively co-operating with the Society in its work.

The Chairman of the Committee on Scientific Essays at the last meeting read an announcement of original papers for several meetings to come. An unusually large number of contributions have been recently handed to him, so as to be scheduled for presentation before the Society. The Chairman is always zealous and active in securing a full scientific program and it is the duty of every member to aid him in his work. Whereas it is very desirable that the members present reports of individual cases, still there is lacking a sufficient number of papers that broadly review and discuss special topics of interest which are at the moment receiving attention of the profession at large.

As the result of a long and bitter experience the Society has unanimously concluded that it is an unwise policy to permit any member to be in arrears on dues for more than three months. It is now a ruling rigorously executed that any member in arrears to this amount will be dropped from the roll. The question has been liberally discussed, each year there being a difference of opinion as to the enforcement of this plan, but now it is unanimously the opinion of the Society that it is the only way to avoid complications. The younger parish societies of the State might do well to profit by our mistakes on this line and adopt the same ruling and see that it is enforced.

The Society's Charter is being altered to conform to the State Constitution, by a Committee appointed by the Board. This Committee will shortly report its alterations to the Society for its approval.

Medical News Items.

THE LATE COMMITTEE OF ARRANGEMENTS OF THE A. M. A. have submitted the following statement to subscribers to the fund of Expenses and Entertainment,—through Drs. L. G. LeBeuf, Treasurer, Isadore Dyer, Chairman; and John Callan, Chairman of the Finance Committee—

Amount Collected:

General subscription.....	\$ 6,859.90
Exhibits	4,771.30

Total	\$11,631.20
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Amounts Expended:

Entertainments, Rental of Halls, etc., etc., etc.....	\$ 9,376.30
Subscribed to Confederate Reunion Fund (entertainment of Physicians and Surgeons).....	647.31
Balance on hand in Canal Bank drawing 3 per cent. interest; held in reserve for founding of a Pasteur Institute	\$1,607.59

THE COUNCIL OF THE BORDEAUX FACULTY of Medicine and Pharmacy has decided that physicians, whether French or foreign, desiring to follow clinics in the special branches would have to pay hereafter fifty francs per quarter. The course in laryngology, otology, and rhinology is under the direction of Dr. Moure.

THE CINCINNATI SANITARIUM.—Dr. Orpheus Everts, medical superintendent of the Cincinnati Sanitarium, after 24 years of service, died June 19, 1903.

Dr. F. W. Langdon is the new special consultant and Dr. B. A. Williams the new Superintendent of the Cincinnati Sanitarium.

ON VACATION.—The following are absent on vacation: Drs. A. D. DeRoaldes, Paul Reiss, S. M. Fortier, L. G. LeBeuf.

CHARITY HOSPITAL NOTES.—Dr. J. D. Bloom has resigned the position of House Surgeon after several years' service as assistant

and house officer. Dr. J. M. Batchelor has been elected House Surgeon with Drs. J. A. Danna and S. W. Stafford as assistants.

DR. H. E. MENAGE has been appointed Pension Examiner in this district.

DR. ALLEN J. SMITH, of the Galvetson (Univ. of Texas), Medical School, was recently elected professor on Pathology in the University of Pennsylvania.

DIED.—Dr. Robert E. Gatlin, one of the leading physicians of Summit, Miss., died July 1, after a long illness aged forty-one years. Dr. Gatlin was president of Summit's Board of Health.

PERSONAL.—Dr. C. D. Simmons, formerly of Dutchtown, La., will settle in Baton Rouge, La., on his return from New York, where he is doing post-graduate work.

IT WILL BE INTERESTING for practitioners to learn that they need not send their electric apparatus away when in need of repairs. Mr. S. J. Stewart, of this city, carries electro-therapeutic apparatus in stock and makes a specialty of repairing them.

PERSONAL.—Dr. S. M. D. Clark has been very much annoyed by the ill-placed enthusiasm of a grateful patient who had his own picture and account of his case published in a daily paper. Needless to say that the doctor had no knowledge of the patient's intention and regrets the occurrence.

DR. C. J. MILLER, of New Orleans, was elected Professor on Operative Gynecology on the Cadaver at the annual meeting of the New Orleans Polyclinic.

Publications Received.

Tuberculosis, by Norman Bridge, M. D.—W. B. Saunders & Co., Philadelphia, New York and London, 1903.

A Manual of Medical Jurisprudence, Insanity and Toxicology, by Henry C. Chapman, M. D.—W. B. Saunders & Co., Philadelphia, New York and London, 1903.

Practical Points in Nursing, by Emily A. M. Stoney.—W. B. Saunders & Co., Philadelphia, New York and London, 1903.

A Text-book of Legal Medicine and Toxicology, Edited by Frederick Peterson, M. D., and Walter S. Haines, M. D.—Volume I, W. B. Saunders & Co., Philadelphia, New York and London, 1903.

29th Annual Report Touro Infirmary and Hebrew Benevolent Association, New Orleans, 1903.

Twenty-Sixth Annual Report of the Board of Health of the State of New Jersey, 1902.

A Manual of Diseases of the Eye, by Clarence A. Veasey, M. D.—Lea Bros. & Co., Philadelphia and New York, 1903.

The Diagnosis of Diseases of Women, by Palmer Finlay, M. D.—Lea Bros. & Co., Philadelphia, New York, 1903.

First Announcement Preparatory Course for Nurses Training Schools—Drexel Institute, Philadelphia, 1903-04.

The Practical Medicine Series of Year Books, Edited by Gustavus P. Head, M. D.—Volume V, *Obstetrics*, Edited by Reuben Peterson, M. D.—The Year Book Publishers, Chicago, 1903.

Bulletin of the University of Virginia, Charlottesville, 1903.

The Duties of the Individual and the Government in the Combat of Tuberculosis, by S. A. Knopf, M. D., New York.

Bacteriology, by Fred C. Zapffe, M. D.—Edited by Bern B. Galaudet, M. D.—Lea Bros. & Co., Philadelphia and New York, 1903.

Transactions of the American Roentgen Ray Society—Third Annual Meeting, Chicago, December, 1902.

International Clinics, Edited by A. O. J. Kelly, M. D., Philadelphia—Vol. I. Thirteenth Series, 1903.—J. B. Lippincott Co., Philadelphia.

J. B. Lippincott Company's Catalogue of Medical and Surgical Publications, Philadelphia and London.

A System of Physiologic Therapeutics, Volume X., Edited by Solomon Solis Cohen, M. D.—P. Blakiston's Son & Co., Philadelphia, 1903.

The Buckeye Doctor, by William W. Pennel, M. D.—The Grafton Press, New York, 1903.

The Refraction and Motility of the Eye, by William Norwood Suter, M. D.—Lea Bros & Co., Philadelphia and New York, 1903.

Report upon the Prevalence and Geographic Distribution of Hookworm Disease, in the United States, by Ch. Wardell Stiles, Ph. D.—Government Printing Office, Washington, D. C., 1903.

E. Merck's Annual Reports, Volume XVI, 1902.—Darmstadt, May, 1903.

Report of Streams Examination—Chemic and Bacteriologic-Sanitary district of Chicago—Made under Direction of Arthur R. Reynolds, M. D., Commissioner of Health, Chicago, December, 1902.

Health Report of the Republic of Cuba, by Carlos J. Finlay, M. D., Chief Sanitary Officer.

A Treatise on the Care of the Expectant Mother During Pregnancy and Childbirth, by W. Lewis Howe, M. D. —F. A. Davis Co., Philadelphia, 1903.

Surgical Asepsis, by Henry B. Palmer, M. D.—F. A. Davis Co., Philadelphia, 1903.

A Text-Book of Chemistry, by Edward Curtis Hill, M. D.—F. A. Davis Co., Philadelphia, 1903.

Studies in the Psychology of Sex, by Havelock Ellis—F. A. Davis Co., Philadelphia, 1903.

The Practical Application of the Roentgen Rays in Therapeutics and Diagnosis, by William Allen Pusey, M. D., and Eugene Wilson Caldwell, B. S.—W. B. Saunders & Co., Philadelphia, New York, London, 1903.

Reprints.

Typhoid Fever in an Infant Nine Months Old; Recovery—Sun Play-Rooms on City Roofs, by W. P. Northrup, M. D.

Regulations for the Sale of Viruses, Serums, Toxins, and Analogous Products in the District of Columbia, Etc. Government Printing Office, Washington, 1903.

Manual of International Classification of Death, Etc.—United States Census Office, Washington, 1903.

A Preliminary Note on the Occurrence of Taenia Nana in Texas, with Specimens, John T. Moore, M. D.

Perineal Prostatectomy.. A Special Method, by Parker Syms, M. D.

The Bacteriological Impurities of Vaccine Virus, by M. J. Rosenau.

Quarantine Laws and Regulations of the United States.—Government Printing Office, Washington, 1903.

Surgery of the Heart, by Benjamin Merrill Ricketts, M. D., Cincinnati.

The Treatment of Chronic Diarrhea, by Charles D. Aaron, M. D.

A Case of Metastatic Adrenal Tumors in the Left Midfrontal and Ascending Frontal Convolutions, by Walter Channing, M. D., and Wallace M. Knowlton, M. D.

The Therapeutic Value of Roentgen Ray in the Treatment of Pseudo-leucemia—Iodized Catgut, by Nicholas Senn, M. D.

Reflex Neuroses, by William Cheatham, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR JUNE, 1903.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	13	5	18
Intermittent Fever (Malarial Cachexia)	8	3	11
Small Pox.....		1	1
Measles.....	1	1	2
Scarlet Fever.....			
Whooping Cough.....	5	3	8
Diphtheria and Croup.....	2	1	3
Influenza.....		1	1
Cholera Nostras.....	1	1	2
Pyemia and Septicemia.....	1	1	2
Tuberculosis.....	52	41	93
Cancer.....	16	4	20
Rheumatism and Gout.....	3	1	4
Diabetes.....	2		2
Alcoholism.....	1	1	2
Encephalitis and Meningitis.....	14	5	19
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	10	6	16
Paralysis.....	1	2	3
Convulsions of Infants.....	1	1	2
Other Diseases of Infancy.....	7	1	8
Tetanus.....	4	2	6
Other Nervous Diseases.....	1		1
Heart Diseases.....	21	19	40
Bronchitis.....	1	1	2
Pneumonia and Broncho Pneumonia.....	9	9	18
Other Respiratory Diseases.....	1	2	3
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach.....	1		1
Diarrhea, Dysentery and Enteritis.....	58	28	86
Hernia, Intestinal Obstruction.....	2		2
Cirrhosis of Liver.....	7		7
Other Diseases of the Liver.....	4		4
Simple Peritonitis.....	2	2	4
Appendicitis.....		1	1
Bright's Disease.....	22	13	35
Other Genito-Urinary Diseases.....	2	3	5
Puerperal Diseases.....	1	3	4
Senile Debility.....	12	2	14
Suicide.....	2	1	3
Injuries.....	13	12	25
All Other Causes.....	34	22	56
TOTAL.....	337	199	536

Still-born Children—White, 18; colored, 24; total, 42.

Population of City (estimated)—White, 227,000; colored, 83,000; total, 310,000.

Death Rate per 1000 per annum for Month—White 17.79; colored, 28.77; total, 20.75.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure..... 29.92
 Mean temperature..... 77.
 Total precipitation..... 3.61 inches.
 Prevailing direction of wind, southwest.

New Orleans Medical and Surgical Journal.

VOL. LVI.

SEPTEMBER, 1903.

No. 3.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

History of Maritime Quarantine in Louisiana Against Yellow Fever.*

By QUITMAN KOHNKE, M. D., Chairman Board of Health and Health Officer of the City
of New Orleans.

History, I take it, is not a mere collection of recorded incidents, but an arrangement of them with proper regard to their significance and value.

Interpretation is the essence of history; an explanatory note being at times more important than the recorded fact, while the judicious omission of unimportant detail may avoid distracting attention from the main object which (in this instance at least) is, to present a picture of the conditions, circumstances and influences that led up to and determined transpiring events.

This paper is intended to show how the presently-existing

* Read before the Louisiana State Medical Society, April 28-30, 1903.

system of maritime quarantine was slowly evolved, despite vicissitudes of fortune and of faith; its builders supported at times by public sentiment, and at others discredited and condemned, seeking all the while to secure protection for our people without resort to absolute non-intercourse, that barbarous weapon for defense and symbol of inability; how the truth was stumbled on as it were, and held for twenty years unrecognized, until after disaster had followed its release; and finally to show in what direction security lies, in what direction quarantine should improve, and in what direction it may be tentatively modified to suit the just demands of commerce.

The records contained in Board of Health reports for the years 1869 to 1902 (inclusive) furnish authority for many of the incidents related, the dates and facts being carefully and accurately compiled at my request by Dr. Sidney L. Théard, Secretary of the Board of Health of the City of New Orleans, to whom I beg to make this acknowledgment.

The first suggestion of a quarantine service for New Orleans was conveyed in a message of Governor W. C. C. Claiborne to the Legislature in 1810. No legislative action followed as an immediate result of this message, and it was not until 1816 and 1817 that the City and State authorities first enacted quarantine laws.

In 1818 Governor J. Villéré, in his annual message, commented favorably on the quarantine laws then existing, expressing the belief that yellow fever was always "imported."

In March, 1819, the Legislature repealed all existing quarantine laws, abolished the Board of Health at New Orleans, and vested in the Governor the power to proclaim quarantine. In July of the same year (1819), after yellow fever had been introduced in the city in June Governor Villéré proclaimed quarantine.

The Governor, who had expressed approval of the quarantine laws, which provided for a Board of Health, and who was evidently of the opinion that medical men could best attend to matters of public health, urged the Legislature in November of 1820 (after the epidemics of 1819 and 1820) to again pass quarantine laws, and in December of the same year (1820) Governor Robertson, in his inaugural message, also urged the re-establishment of quarantine.

In February, 1821, the Legislature re-enacted quarantine laws, appointed a Board of Health composed of 12 members, with the Mayor of New Orleans (Joseph Roffignac) as president ex-officio, and established at English Turn, about sixteen miles below the city, a quarantine station, at a cost of over \$22,000. Detention of vessels in quarantine for ten days, and removal of the sick to the hospitals on shore were the measures of prevention employed.

Somebody's business must have been seriously interfered with, or the pendulum pushed too far from the center, for again, in February, 1825, the Legislature repealed all quarantine laws, and ordered the quarantine grounds and buildings to be sold.

For sixteen years there was no Board of Health, and no quarantine—and, incidentally be it said, no marked change attributable to this account in the behavior of yellow fever. For some reason, however, possibly the high rate of mortality from which the city at the time suffered, an ordinance for the establishment of a Board of Health in New Orleans was again passed by the General Council, in June, 1841. The Board consisted of nine members—three aldermen, three physicians and three private citizens. It was invested with ample powers to adopt and enforce such sanitary regulations as might be thought conducive to the health of the city.

It is evident that those were not very strenuous times for health authorities, for it is chronicled that in 1844, the Board of Health "having ceased to officiate," the General Council invited the Louisiana Medico-Chirurgical Society (incorporated April 1 of the preceding year) to take charge of the sanitary interests of New Orleans. This proposition was accepted and a committee of nine members appointed with full powers to act as a Board of Health. Probably no quarantine powers were given this Board of Health; it is certain no quarantine stations existed at the time.

As a result of the frightful epidemics of 1853 and 1854 the Legislature, in March, 1855, re-enacted quarantine laws, re-established a quarantine station at a point 70 miles below the city, opposite Buras, appropriating therefor the sum of \$50,000, and created a State Board of Health, composed of nine members, three to be elected by the Council of New Orleans, and six to be appointed by the Governor; all to be selected with reference to their known zeal in favor of quarantine, the profession at the time

being divided regarding the telluric origin of yellow fever and the desirability of quarantine.

The measures then enforced were: Detention of ten days in quarantine, during the summer months, of vessels from tropical zones; removal to hospitals on shore of persons found sick on board; and a superficial cleansing of vessels excessively filthy.

These were rigorous measures (for those days), including, as they did, the "superficial cleansing of vessels excessively filthy", but they served only to lessen the number of cases; they did not prevent entirely the introduction of yellow fever, the disease occurring (probably re-introduced) every year.

The "cleansing of vessels excessively filthy" may have destroyed mosquitoes to some extent, but not in sufficient numbers.

In 1858 the Legislature enacted the important modification of counting the ten days of detention, not at the quarantine station, but from the point of departure for the port of New Orleans.

In 1858 yellow fever, after two years of comparative absence, occurred in greatly increasing numbers of victims; 4,855 being the number recorded as having died of the disease.

Possibly on account of a restoration of the detention period at quarantine to ten days, the number of deaths recorded the next year (1859) was less than 100.

In 1861, with blockading of the port, New Orleans was exempt from yellow fever.

From 1862 to 1865, as a result of the great Civil War, there was no active participation in foreign commerce, and New Orleans enjoyed comparative exemption from the fever.

During the epidemic of 1867 disinfection of premises by carbolic acid was suggested and practiced by Dr. S. E. Smith, president of the Board of Health.

In 1868 the quarantine officer and the Board of Health arrogated to themselves the right to reduce or entirely omit the period of detention in quarantine required by law.

After the occurrence of three deaths in 1869 the legal period of detention in quarantine was restored.

In 1872 once more occurred an unauthorized reduction of time of detention in quarantine. In 1873 the first case of yellow fever

was brought on a ship (the *Valparaiso*) detained at quarantine but two days.

In 1873 Dr. C. B. White, president of the Board of Health, encouraged by the apparent success attending the use of disinfection about premises, recommended disinfection of ships and cargo in addition to the prescribed ten days' detention in quarantine. Dr. White argued that, although a ten days' detention, as required by law (not always observed, however), might be a sufficient period of time to determine whether crew and passengers would be attacked by fever, "Time alone," he said, "was of no value in rendering a vessel harmless to the community," and experimental disinfection of both ship and cargo should be tried.

In 1874 special efforts were made in the direction of disinfection. By the aid of an apparatus designed and planned by Dr. Alfred W. Perry, quarantine physician at the Mississippi station, sulphurous acid gas in large quantities was forced into the holds of vessels, carbolic acid being still used freely above deck.

The use of sulphur fumes to disinfect for yellow fever was the beginning of mosquito destruction in the holds of vessels.

The destruction of mosquitoes was at the time regarded as incidental only to the destruction of the unknown germ.

To Dr. Perry belongs the credit of being the first to chemically destroy infection in the holds of yellow fever infected ships. He builded even better than he knew. He had not long to remain in the service, however, and he went out of office during the same year.

During the time that Dr. Perry was in charge of the quarantine station, from April 11 to October 14, 1874, no yellow fever developed on ships disinfected by him, although several had arrived with yellow fever on board. Two days after the station passed into the charge of Dr. Perry's successor a vessel from Cuba was passed without disinfection, contrary to the instructions of the Board, and a week after yellow fever broke out on the vessel while moored at the wharf in the city with all its cargo discharged.

Perry's apparatus, a small affair and worked by hand power, was not employed, apparently, after his departure from the quarantine station, though sulphur disinfection was continued.

That the authorities were unsettled in method and uncertain of result is evident, for in 1875 vessels disinfected at the quarantine stations were again disinfected on arrival in the city immediately after removal of their cargo; the practice being omitted, however, in the case of steamers which had not lain at the wharves of infected ports, or which remained but a few hours in the city.

In 1876 the omission of detention of vessels in quarantine, and reliance on inspection and disinfection alone, obtained the legal sanction of the Legislature. The incubative period of yellow fever was declared to be, by resolution of the Board of Health, *six* days. Unacclimated persons were directed to be held in quarantine until the completion of the sixth day from an infected port, counting the day of departure as one day. The hold and cabins of vessels were subjected to fumigation by sulphur, burned in open iron pots. The bedding and baggage were sprayed with dilute carbolic acid.

Sulphur disinfection, begun by Perry, had emphasized its efficiency by the result following the temporary abandonment of the practice by Perry's successor.

The period of incubation of yellow fever, as officially established then, was, practically, what it is considered now. Yellow fever had been reduced in number of cases to only one recorded fatal case in 1877. The epidemic of 1878, with a mortality of 4,046, was undoubtedly due to overconfidence in disinfection, and consequent relaxation in other preventive measures.

In 1877 and 1878 vessels were admitted to the city after being detained only such time as was necessary to fumigate and sprinkle—from four to six hours.

The epidemic of 1878 was unquestionably introduced by persons arriving in the incubative stage of yellow fever, who developed the disease in New Orleans.

After the epidemic of 1878 Mr. Wm. Van Slooten, chemist to the Board of Health, recommended to the Board (May 3, 1879) the adoption of the method in use in Europe—disinfection by high temperature—and suggested that at the quarantine station be constructed a heating chamber in which wearing apparel, bedding, etc., could be exposed. The poverty of the Board did not permit it to carry out this suggestion.

In 1879 the period of detention was fixed at twenty days; later in the season, however, the period was reduced to ten days. Vessels were scraped, fumigated, drenched with carbolic acid solution, whitewashed and painted, and new bedding and clothing from the city substituted to that on board.

It is almost amusing to observe how very tightly we closed the stable door after the animal had escaped.

The epidemic of 1878 was, I firmly believe, the last epidemic caused by personally conveyed infection, for the precautions taken against infection since then have been and are such as to exclude with a reasonable certainty infected persons. Not so, however, as regards infected mosquitoes. It is true that mosquitoes were destroyed by Dr. Perry in 1874, and subsequently this was practically provided for by the regulations adopted in 1876, but a new danger arose and gradually developed in importance, viz., the banana ship, whose cargo could not be subjected to sulphur fumigation.

Fruit vessels in those days loaded only at the Bay Islands, ports never visited by yellow fever, and with the understanding that the fruit importers would maintain at their own-expense, in the Island of Ruatan, a medical inspector chosen by the Board of Health, who would by each vessel report the sanitary condition of the islands, this trade was exempted from the requirements of quarantine.

In 1880 vessels (other than fruiters) from ports usually infected were detained in quarantine seventy-two hours, and such additional length of time as the Board of Health determined in individual cases, the period of detention being extended to from ten to twenty days whenever the public safety seemed to demand it. Persons exposed to infection were not permitted to leave until an interval of five days had elapsed from their last exposure.

The same year (1880) Dr. Joseph Jones, president of the Board of Health, designed and had built an apparatus for pumping sulphur fumes in the holds of vessels. Like the one of Dr. Perry, it was deemed too small for advantageous use. The extreme poverty of the Board debarred Dr. Jones from further attempts to introduce superior apparatus.

In 1881 the minimum period of detention was fixed in the Governor's proclamation at seventy-two hours, but later the Board, in

response to demands of the health authorities of surrounding States, made it not less than ten days.

In 1883 the Governor's proclamation fixed the minimum period of detention at ten days. Later in the season absolute non-intercourse with infected ports was declared.

From 1880 to 1884 vessels from tropical ports, after discharging their cargo in the quarantine warehouses, were cleansed and swept out and fumigated with sulphur burned in open iron pots, the air in the hold being forced out and changed from time to time during the process of disinfection by lowering the windsails in the hold. Bedding and clothing were aired by being exposed in the rigging.

In 1884 the Board of Health, finding itself powerless to accomplish the cleansing of a vessel, and believing itself without legal warrant for a declaration of non-intercourse, resorted to quarantine in the literal sense of that term, sealing the port of New Orleans under a proclamation of forty days' detention.

In July of the same year Dr. Joseph Holt appealed to the Legislature for funds with which to carry on an adequate system of maritime sanitation, and, impressed with his report and views, the Legislature appropriated \$30,000 for the purpose.

On June 10, 1885, the system was inaugurated. A sulphur furnace was built, of 600 pounds capacity, with an exhaust fan propelled by steam power attached, connected with a twelve-inch galvanized iron conductor leading to the hold of vessels. The fan used was of the Sturtevant model. Passengers and crew remained under observation from three to five full days from hour of arrival in quarantine, according to the remoteness or nearness of the port from which the vessel hailed; and longer in the case of infected vessels, until, in the opinion of the Board, the vessel could be safely allowed to proceed to the city. The five days' detention applied to all ports of the Gulf of Mexico and the Caribbean Sea, exception being made in regard to vessels coming from ports south of the equator, whose period of detention was only three days.

Disinfection by bichloride of mercury was substituted for disinfection by carbolic acid.

In 1886 Dr. Holt had built, for the better disinfection of clothing, etc., a heating chamber like the one suggested to be erected by

Van Slooten in 1879, and the system practiced then embraced the concurrent application of every good principle previously suggested.

By this time the trade in bananas, pineapples, cocoanuts and other tropical products had grown in importance, and a line of vessels increasing in number was established to import fruit not only from the Bay Islands, where yellow fever did not exist, but also from the several Central and South American countries furnishing desirable cargoes. Realizing possible danger from the latter source, and doubtless recognizing also the impracticability of disinfecting tropical fruit with sulphur, and the necessity for these vessels of reaching a market quickly to prevent loss of cargo by decay, the privilege of entry without detention was extended to the fruit trade under the following stipulated conditions: The avoidance of infected ports; the employment of acclimated crews; and the non-acceptance of passengers during the summer months. After discharge of the cargo the empty hold of the vessel was fumigated (sulphur).

This burning of sulphur in the empty holds of fruit vessels was the nearest approach possible to disinfection of their cargoes. It was never supposed that the fruit itself could convey the germs of disease, and the fumigation of the empty holds was much ridiculed in certain quarters, the practice being deemed as incurring unnecessary delay and a useless expenditure; it was persisted in nevertheless, and submitted to.

It is a well known fact that sulphur fumes cling for a longer time to cracks and crevices, nooks and corners—recesses into which mosquitoes retire to escape the light, and which they would naturally seek to avoid the draught of air that constantly passes through the cargo of a fruit vessel, specially constructed for this purpose. It is not unreasonable to believe that the mosquitoes refusing to seek shelter in these sulphurous recesses were blown out of the vessels, which were in this way, without injury to the cargo, freed from the objectionable insects that might have entered the hold. Whatever the explanation, the fact is that comparative freedom from yellow fever was enjoyed by this city and State since the known importation of infected persons in 1878, and until the probable importation of infected mosquitoes in 1897.

In June, 1898, at the time that Dr. C. P. Wilkinson was presi-

ident of the Board of Health, Surgeon General J. B. Hamilton, of the U. S. Marine Hospital Service, detailed Dr. J. J. Kinyoun, a scientific expert, to investigate the system in use at the Louisiana Quarantine Station. The test revealed only some few imperfections in the mechanical construction of the plant.

In 1889 Dr. Wilkinson suggested improvements in the heating chambers, for the certain and uniform application of dry and moist heat, and an entirely new plant, embodying these improvements, was completed and erected before the opening of the quarantine season at the present location of the quarantine grounds, Cubitt's Gap, a point 91 miles below the city*

The system was still further improved in 1890 and 1891 by Dr. S. R. Olliphant, who made radical and important changes in the construction of the apparatus, especially the sulphur furnace, adding very materially to the efficiency of disinfection, as then understood.

In 1891 vessels (other than fruiters) were detained three full days after completion of disinfection, instead of, as formerly, five full days from the hour of arrival in quarantine, irrespective of the time of disinfection. Later cabin passengers were allowed to be taken on fruit vessels, at the discretion of the resident medical inspectors of the Board, on satisfactory proof that they had not been in any infected locality during the preceding thirty days.

In 1893 vessels from tropical quarantine ports where a U. S. medical officer was stationed, such vessels carrying known acclimated crews and having no passengers aboard, and having not been moored at wharf, were given pratique immediately after disinfection, without the usual prescribed three days' detention applying to vessels from infected and suspected ports.

In 1894 vessels engaged in the tropical fruit trade running to ports having resident medical representatives of the Board of Health, were accorded immediate inspection on arrival in quaran-

* In 1874 various transportation lines combined to resist the payment of quarantine fees to the Board of Health. They were successful in obtaining an injunction restraining the Board from collecting these fees.

During the administration of Dr. Joseph Jones, President of the Board from 1880 to 1883, proceedings were instituted to have this injunction dissolved. The State Supreme Court rendered a decision in favor of the Board in January, 1884 and the case was immediately appealed by defendants, to the Supreme Court of the United States, and, in 1886, this Court maintained the decision of the State Court. Owing to threatened further legal delays in the matter, the General Assembly, in May, 1888, authorized a compromise resulting in the payment to the Board of \$36,000, the larger portion of which sum was devoted to the removal and equipment of the new quarantine station.

tine, by night as well as by day, and allowed to proceed to the city without delay, provided all on board were well and the sanitary condition of the port from which the vessel sailed was declared satisfactory by the resident physician at that point; the vessel on arrival in New Orleans having no communication on shore until after the visit of the shipping inspector and his inspection, by daylight, of the vessel, crew and passengers.

Viewed in the light of the mosquito conveyance of yellow fever, the concessions made by the quarantine authorities to the needs of trade and travel were all well within the limits of safety, provided each official performed his full duty and was properly informed. As usual, however, trade was not satisfied, and people who were making fortunes through special quarantine regulations in their interest (not improper regulations be it understood) demanded more.

The charge per vessel for fumigating the empty hold was \$20.00, and the delay in departure from this port was always, I understand, less than a day.

To facilitate the trade, and in answer to the pressing demands of commercial interests affected, and doubtless actuated by a laudable desire to remove from commerce burdensome and unnecessary restrictions, the quarantine authorities, in 1895, passed a resolution abolishing the fumigation of the empty hold of fruit vessels, maintained in a cleanly and good sanitary condition, and running only to known healthy ports.

The practical operation of this resolution was to discontinue altogether the fumigation of the empty holds of fruit vessels.

In previous years *all* vessels engaged in the fruit trade had been required after discharging cargo to undergo fumigation.

In 1897, because of the early appearance of yellow fever at Port Limon, a fruit port in Costa Rica, quarantine was established on April 15, instead of May 1, as formerly.

At some time during the summer of 1897 yellow fever was introduced into this country. Exactly where, precisely when, or distinctly how, are matters of speculation. The fever occurred again the next year and the next after that.

In 1897 the fever was first discovered in Ocean Springs, Miss., and the records give this little Mississippi summer resort, which for intimacy of relationship is practically a suburb of New

Orleans, as the point of origin for the epidemic of 1897; those of the two years following being considered recrudescent in their origin. Recrudescence and charity cover a multitude of sins; recrudescence and reflex serve at times to explain, more or less satisfactorily, symptoms and occurrences not well understood. It is not illogical to suggest that perhaps the origin of the fever of 1898 and that of 1899 was the same in source and avenue of entrance as that of 1897, and that infected mosquitoes were repeatedly introduced into New Orleans by incoming fruit vessels from infected ports.

In 1898 quarantine was established on April 1. Vessels (other than fruiters) were still detained under observation three full days after disinfection.

Later in the season (of 1898) the period of detention was, by resolution of the Board, extended from three to five full days.

In 1900 it was decided that in the case of vessels disinfected at the port of departure by the resident medical inspector of the Board, and again disinfected on arrival at the Mississippi River Quarantine Station, the five days' detention be counted from the date of the first disinfection.

On April 1, 1902, at the earnest solicitation of the New Orleans Board of Health, repeatedly expressed, the sulphur disinfection of fruiters (empty), discontinued since 1895, was resumed; this was modified, however, one week later so as to apply only to vessels from ports where yellow fever was reported.

Previous to 1895 *all* fruiters had been disinfected, whether from known infected ports or not, all fruit ports being considered as possibly infected.

In March, 1903, special regulations were adopted regarding the destruction of mosquitoes on board of vessels from the fruit ports, but these regulations applied only to the living quarters, and did not provide for disinfection of the holds, save those only of vessels arriving from infected ports after discharge of arriving cargo.

In April, 1903, an appeal was addressed to the quarantine authorities to restore the sulphur disinfection of the empty holds of *all* fruiters instead of limiting this measure to vessels from known infected ports. This appeal was referred to a committee of the State Board of Health, and is now under consideration.

Meanwhile the conditions are these: Vessels (other than fruiters) from tropical ports from which yellow fever may be imported, are disinfected entirely before admission; passengers being detained with the vessel to complete the full period of incubation (5 days) after such disinfection.

Fruiters from infected ports are disinfected, *except the hold and cargo*, and admitted without detention, the empty hold being disinfected with sulphur, burned in iron pots, after discharge of cargo. Fruiters from ports not considered infected are disinfected partially only, *the hold and cargo being not included*, and are admitted without detention. Fruiters containing cases of yellow fever are detained for five days after disinfection. Fruiters may send their cargoes to the city on lighters previous to the disinfection of the vessels.

ARGUMENT.

No discovery in preventive medicine explains the history of our successful quarantine operations against yellow fever so well as that of the mosquito transmission of the disease; and nothing explains better our failures in 1897, '98 and '99.

The recorded incidents of history form a chain of circumstantial evidence illuminated by the discovery of Reed and Carroll in Cuba, so brilliantly corroborated by Guiteras and others abroad, and by Beyer and Pothier and their co-laborers at home.

Even a superficial reading of history compels us to recognize the two cardinal principles of quarantine against yellow fever—destruction of mosquitoes and detention for five days of persons exposed to the disease.

Whenever we suffered extensive infection in the past we had been lacking in one or the other of these two essentials, and had invited pestilence to visit our shores. In 1878 we destroyed mosquitoes but failed to detain persons during the period of incubation; in 1897, '98 and '99 we detained persons the full period of incubation, but imported mosquitoes in the holds of fruit ships.

Blame should not be attached to those in authority in 1878 or in 1897-99, for they could not then have known what has since been learned.

To-day, however, quarantine against yellow fever is reduced to a formulated science, and to modify by election the full application

of either of the two cardinal principles is to assume, by the commission of a deliberate and conscious act, a grave responsibility.

Now that we have the truth again and know it, let us cling to it and safeguard it from further experiment.

If there be a proper field for experimentation it must lie somewhere in the uncertain realm of fomites. There is much to discover in this field, for there is little known, perhaps less to be learned, save in a negative way.

Boon and Bane.*

By DR. WM. L. RABE, Dwight, Illinois.

The result or product of distillation and fermentation of fruits, vegetables and cereals is the peer of any or all commercial factors in the wide, wide world.

Noah, when he ceased to be a mariner or seafaring man, and became a farmer and horticulturist, is the first recorded example of inebriety. Lot, who left his good friend and adviser, faithful Abraham, and pitched his tent among the convivial Sodomites; and lost a good wife for her disobedience, was the next. Samson, the weakest, in a sense, and yet the strongest of men, was able to avenge the tirade and many insults and injury of his mockers, killing more in a moment than in all the rest of his life time, on account of the excessive hilarity and stupidity combined of the motley crowd who held him in their dangerous besiegement and environment. When one of the chief captains of the king of Assyria shut off the water supply of a city of Judea, assembled his army before the gates, and destruction seemed inevitable, it is said that Judith, a woman of daring and surpassing beauty, deluded the captain of the king with art and cunning. He drank more wine than in all his life before, and while in stupefaction the fair Cyprian, in an hour of the night, cut off the head of the destroyer of her kindred and nation.

All the way down history comes the mixing and making of

* Read before the Livingston County, Illinois, Medical Association, May 7, 1903.

strong liquor and condiments; the prophets allude to the use of wine in Jerusalem in common, and its results.

In after history, King Philip, for instance, when asked by a woman for justice, was told to appeal. "To whom," said she, "Philip drunk or Philip sober?" A coincidence, in point, occurred not long ago to our knowledge, in a disputation among three, a decision was reached unanimously that Dr. Blank was the best in town—if you got him sober.

Alexander, who couldn't withstand Persian luxury, in a fit of drunken passion, impaled a servant on his sword, the remorse for which nearly cost him his life.

Cyrus, who made sad havoc of the attendants at the impious feast of Balshazzar, outlined in poetry by Byron, was pained to see his double kingdom pale and die from Oriental luxury. The Scythians, once models of sobriety, soon became so extremely dissolute that it was a trite saying to those **drinking madly**, "drink like the Scythians."

This reminds me of a patient in D., who visited all places and tried all the reputed cures. When I asked whether he drank like a gentleman or a hog, his answer was, "like a gentleman". "Why so?" "Why, a hog knows when to stop."

We need not to continue to draw our instances down the ages; Germany, Greece, Italy, British Isles, Denmark, are full of examples. "Like king or ruler, like all nations' people," is the old adage. In our own beloved America, justly called the land of the free and the home of the brave, made of the good left of other nations, in a century of the world dawning on a civilization the highest on record, the entrepot, so to speak, of representation of nearly every land or nation appearing on the pages of the annals of universal history, here is the same tale of woe. Sufferings are multiplied that cannot be told by human tongue or written by pen, but only felt by human heart. All from the use and abuse of a pseudo-King Alcohol—the world's intoxicant, the paradox, a too pessimistic view, this.

On the other hand it is the servant of fashion, the good cheer of a well regulated household, the boon at any and all times, like fire, a precious good thing when confined in a fire-pot, non-explosive; bad, terrible, when kindling in a cellar or bursting through

the house top. Like gold or money, a boon indispensable, but awful when the love of it brings dire calamity to fireside and home, by separation, imprisonment and death often too soon following. Like money, of gold, silver, nickle, or even copper, all are good, but the counterfeit, alas, alas.

The companion of the tourist, the friend of the mariner, it is consoler of the warrior when wounded or weary; solace to the lonely traveler; the very life of the banquet; the *sine qua non* at the marriage feast; the inspiration of the poet; the stay of the jurist; "the assistant, at least in the highest scintillation of oratory," Webster's reply to Payne. It's all the same for the high, the low, the rich, the poor, the young, the old, the untutored and the learned. The very Alchemy, so to speak, in the laboratory of the chemist or pharmacist.

When such in healthful conditions, how in disease? In debility invaluable, in a great measure, the only true diffusible stimulant in the world, never elevating temperature directly. Of the highest value in low fevers, the lower the depression, the more strongly indicated. Food it may be; in olden times it was called *elixir vitae*; just as it has been and always will be. The greater the creature or creation for good, strangely and paradoxically as it may seem, it may become in the same degree or proportion for evil.

But how modify the bane? First suggestion: Quality the test, not quantity. Who can but admire the earnest busy Christian workers of our times and in the past, antagonistic to the bane? But the most unendurable person is the temperance crank; sometimes of a pious or religious turn of mind. Had he lived then and been there, he would have made issue with his Lord and Master, who made, it is said, the very best of wine at that notable wedding at Canaan of Galilee. To-day, however, when celebrating the memorial of his departed Saviour, instead of wine, he substitutes juices. Somewhat defective in mental calibre, not a single practical idea on his fingers ends, his affliction is paucity of thought and a diarrhea of words, and that too, of a chronic character. Tirades and abuse of the victim of drink, whether by Providence or result of sin and vice, never reforms him. How shall we, as doctors, regular in our profession, mitigate the woe and heal the diseases of the system occasioned by drink, good or bad? I would

say just as any other traumatic, sporadic or epidemic disease, as met in every day practice. Restraint and rational routine are evidently all that is needful. There are no specifics for disease at all in this day nor have been in any other. Secret medicines are not tolerable surely in this day of medical advancement and achievement. I have no objections to bartering, trading or speculations and the like, but he that hoards money from the misfortunes of his fellow men, barter with human happiness and traffics in human life, as a citizen is, or ought to be graded with the spurious gold brick designer. If a doctor, I could not in all commendable charity for the profession, call him first-rate.

What are the remedies? A little over a decade ago bichloride of gold, a dear name with a refined prefix, caused an unusual flurry in the new, and likewise an interest in the old world. Scores, hundreds, and up to a certain date two hundred thousand, quoting from Johnson's Encyclopedia, flocked to the new, as ancient pilgrims did to the old Mecca, and the new ones were just like the old when they got there. So great was the infatuation of the gold cure, or faith in the gold in the cure, that one of the sons of Abraham in a city who have, it is said, a great liking for the precious metal, on an occasion while importuning and over-importuning an individual to come into his clothing department, when asked why he insisted so greatly, replied, "Mein Gott, don't you know he's been down to Dwight and got his belly full of gold?"

But let this pass. "Willow Bark" claims its tens of thousands, the "Golden Tonic" likewise, and last, but not least, I know not of the success of the remedies advertised by the president of the W. C. T. U., but trust, as Judge Tuley said of the Dowie corporation, "they will not link God and Mammon, but in purity and in lasting and fond remembrance of the loved and lost Frances Willard, will assail with might and main the potent trusts, who to-day are flooding the land with patent concoctions." A few of them follow:

Green's Nervura,	17.	per cent.	alcohol.
Hood's Sarsaparilla,	18.2	"	"
Schenk's Seaweed Tonic,	19.8	"	"
Brown's Iron Bitters,	19.5	"	"
Kaufman's Bitters,	20.7	"	"

Paine's Celery Compound,	21.5	per cent.	alcohol.
Burdock Blood Bitters,	25.2	"	"
Ayer's Sarsaparilla,	26.2	"	"
Warner's Safe Bitters,	35.7	"	"
Parker's Tonic,	41.6	"	"
Hostetter's Bitters,	44.3	"	"

I quote the above from "*American Medicine.*"

It is worthy of remark that morality attacks the licensure and stock beverages, while these as "medicines" escape.

Apropos, let us say in comparison that beer contains 2½ to 6 per cent. alcohol, wine contains 10 to 20 per cent. alcohol, and whisky contains 25 to 40 per cent. alcohol.

And these are condemned as poisons, the vendors thereof maligned, persecuted, sometimes, it is too true, justly, by combined individuals numbering approximately about 1-5 the population of our common country; while corporations, who without taxation, mix this poison crude, neither purified or rectified, with more insidious and dangerous drug extractions, poisons or toxics, place them in all marts of trade, advertise with shrewd adroitness and cunning, with imaginary indications, fostering desires and unwonted tastes, by the aromatized little Demon getting in his work too well, all under the guise of angelic therapy, to which the whole of professional and lay classes are prostituted, as evidenced in the daily papers; publishing the pretended merits of these concoctions, to which are attached the portraits and statements of politicians, sweet womankind, ministers of the gospel, and others who are either victimized or subsidized.

I confess I have not conception or words to do the subject justice, and therefore submit the subject, crude but pertinent, to the mature reflection of my brethren of the profession.

Pneumogastric Sedatives.

By WILLIAM F. WAUGH, M. D., Atlantic City, N. J.

In cholera infantum and in cholera morbus we have a typical picture of intense irritation of the pneumogastric nerve, or of those filaments that end in the alimentary canal. Since the profession

has passed the point when astringents were thought the one thing needful in this group of maladies, the sedation of this vagus irritation has become the leading indication.

The most direct and powerful pneumogastric sedative is atropin. It is fortunately the most manageable of remedial agents and is exceptionally well tolerated by children. Its effects are also so uniform in their development that it admits of a precision of dosage for effect that none of the old remedies for the choleras enjoyed.

It is quite easy to administer atropin hypodermically, in cases requiring quick relief. For an adult half a milligram (gr. 1-134) is an average dose, for a man weighing 150 lbs. The old rule of dosage by age should be abolished and that by weight substituted, as being much more nearly accurate. Thus a child weighing 15 lbs. should receive 1-10 of the adult dose. This may easily be measured by dissolving a granule containing gr. 1-134 of atropin in 100 drops of water and injecting 10 drops. But as children bear larger doses comparatively than adults, about 15 drops would be advisable.

In any case the dose should be repeated in 15 to 30 minutes, until the physiologic effects are obtained. Among the advantages of the use of naked alkaloids, hypodermically or given by the mouth in solution, are their quick absorption and speedy manifestation of action. Another is the uniformity of effect, which renders explicit directions to the nurse possible.

The first manifestation of the action of atropin is dryness of the mouth. Then come redness of the face and dilation of the pupils; but it is not necessary to wait for these, as the full therapeutic benefit is obtained from a dose just sufficient to cause some dryness of the mouth. The moment this is felt the remedy is to be stopped. In fact, so potent is it for good, that no more is needed.

Bismuth is a powerful local sedative to inflamed tissues, if it is left in contact with them for at least 12 hours. This is rarely if ever possible in treating an inflamed stomach; yet the persistent instillation of the subnitrate in one to five-grain doses every quarter hour, sometimes has an excellent effect.

Pepsin acts much as bismuth does upon an irritated stomach, when given in small and frequent doses. Possibly pepsin is the better. They go very well together.

Zinc oxide is more useful in chronic gastric irritabilities. The preparations of hydrocyanic acid have long enjoyed repute as gastric sedatives, but the uncertain quality of every one of them has led to their disease. The cyanide of zinc is uniform and stable, but observations on its use are wanting.

The only other gastric sedative worth mention is the application of rubefacients over the pneumogastric in the neck. The nerve lies near the surface, under the anterior edge of the sterno-cleido-mastoid muscle, and a strip of mustard over it will nearly always subdue vomiting, as well as the paroxysms of asthma.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. E. J. GRANER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING OF JUNE 27, 1903.

DR. GRANER, President, in the Chair.

DR. H. J. DUPUY read a paper on

**“Laryngeal Complications in Typhoid Fever; Report of Case;
Tracheotomy; Recovery.”**

No subject within the domain of medicine has had more earnest thought and painstaking researches focussed upon it than that of typhoid fever. Yet the laryngeal complications of the disease, which occur more frequently than is generally supposed, and when present diminish the chances of recovery, are woefully ignored by the profession at large.

With one or two exceptions, our text-books bestow on these gravest and least expected complications of typhoid only a passing

notice. Even works devoted to laryngology give the most meagre information on the subject.

The general indifference to the laryngeal affections which sometimes accompany typhoid may possibly be due to the fact that at the bedside other, apparently, more threatening symptoms overshadow all else. The inability or disinclination of the attending physician to use the laryngoscope, the stuporous and feeble condition of the patient rendering this procedure impossible, also seem satisfactory explanations.

It is interesting to note that the recognition of laryngeal lesions complicating typhoid is not altogether of recent date. Bouillard, in 1825, and Louis in 1829, refer to cases of this nature. Isolated reports of such cases appeared in the literature from these earlier dates to the year 1876, when William Keen, of Philadelphia, collected 169 cases of typhoid affections of the larynx.

Luning, in 1884, who evidently knew nothing of Keen's collection, published 213 collated cases, presumably identical to Keen's first series, to which he added 14 personal ones. In 1898, Keen published his classic monograph on "The Surgical Complications and Sequels of Typhoid Fever," in which we find 38 cases of laryngeal complications collected since Luning's paper, which, with Luning's 14 original ones added to Keen's 169 cases of his first series, gives a total of 221 cases collated up to the year 1896. This practically included nearly all the cases recorded in the fifty years prior to 1896.

With the valuable assistance of Dr. L. DePoorter and Mr. George Augustin, I have attempted to bridge over the period from 1896 to May, 1903. We have made extensive researches through the literature, using the *Index Medicus*, *Bibliographia Medica* and *Index Catalogue of the Surgeon General's Office*, as references, with the result that I can now add 37 collected cases of laryngeal complications in typhoid to Keen's series, with an additional personal case, which gives a total of 259 cases, the approximate number reported in the last fifty-eight years.

Etiology.—Rokistansky, in 1842, anticipated some of the most recent views as to the causation of these affections, by considering the laryngeal involvement "as a true metastasis of the poison."

Keen, however, in 1898, was not aware of a single observation

which had revealed the presence of the Eberth bacillus in the larynx. He evidently knew nothing of Schulz's demonstration, in 1894, of typhoid bacilli, both in sections and cultures, from the swollen lymphoid nodules of the larynx.

Cornil, Ranvier and Watson Williams adduce similar evidence from histological examinations. Lucatello, Klebs, MacKenzie, and many other observers, are unanimous in their opinions that these affections in the larynx are true typhoid lesions, identical with those of Peyer's patches.

A study of the laryngoscopic findings, and the observations at necropsies, tend to show that the lesions in the larynx have special characteristics, and in regard to their seat, form and course, are so typical, that they form a separate class deservedly considered typhoidal.

Typhoid being a polymorphous disease, showing a predilection for lymphatic tissue wherever distributed, is it not possible to have a primary localization of the disease in the adenoid deposits of the larynx?

Prof. Gerhardt's case of "laryngo-typhoid" (reported in *Archives of Laryngology*, 1880), has a distinct bearing on this question. In this instance the larynx presented the typical typhoid ulceration at the very onset, the other usual symptoms appearing in their regular order. In two cases, recorded by Schuster, the infection at first seemed to be focussed in the larynx. Watson Williams¹ reports the case of Ernest S., in which the "enteric fever commenced with the laryngeal affection," the larynx being the seat of typical typhoid lesions. The Eberth bacilli were demonstrated in cultures inoculated from the ulcers on the arytenoids. The necropsy finally confirmed this diagnosis. Additional evidence was furnished by the history of this case, which disclosed the interesting fact that the attending nurse, and a friend, from another ward, who visited this patient, both contracted genuine typhoid from Ernest S. The delirious patient expectorated freely on the bedclothes; and all the facts surrounding this case seem to point to the expectorations as the only possible source of infection, which, by the way, tends to support the recent views relative to the infectiousness of typhoid.

1. Diseases of the Upper Respiratory Tract, etc.

While weighty arguments, clinical data, and bacteriologic evidence seem to support the contention that, in most instances, these affections are directly caused by the Eberth bacilli and their toxins, it must also be admitted that they are sometimes pyogenic. I have found several cases in which histologic sections and cultures failed to disclose typhoid bacilli, but revealed pyococci in abundance.

Many of the earlier writers attributed all such conditions to secondary diphtheritic infection. Several recently reported cases, while presumably caused by the Klebs-Loeffler bacillus, lack microscopic confirmation.

Murray,² and Robertson,³ each reports carefully observed cases of Ludwig's angina occurring during the third week of typhoid. Death supervened. In Robertson's case, the microscope showed pure streptococcic infection.

Dorsal decubitus is considered a predisposing factor in the causation of these morbid changes in the larynx. The effect of gravity leading to venous stasis and softening of tissues, particularly, along the posterior wall of the larynx, might result in abrasions of the parts, thus permitting the entrance of the infecting organism.

Frequency.—Landgraf's estimate, based on all known statistics places typhoid affections of the larynx at 11 per cent. of all fatal complications. Griessinger, 26 per cent. of all his fatal cases. Luning estimates it at 3 per cent. from clinical statistics, and 17 per cent. from post mortem examinations. The latter's analysis shows plainly that the condition is but too infrequently recognized during life, a necropsy revealing it as one of the probable causes of death. More frequent use of the laryngoscope and post mortem findings increase the percentages.

Pathologically, these affections may be grouped into three varieties: (1) Sub-mucous laryngitis (in which the deeper tissues are involved); (2) Ulcerative laryngitis; (3) Laryngeal perichondritis. Practically, it is difficult to separate these forms, one may overlap the other. Edema, in this class of cases, being of inflammatory origin, exists only with either of the above forms.

Necrosis of the cartilages, resulting from perichondritis, is, from Keen's and Luning's statistics, by far the most common form of

2. *American Med.*, 03. 3. *Ibid*, 1901.

laryngeal complication, the cricoid, and next to it the arytenoid, being most frequently involved.

Ulcerations appear next in frequency; observers, however, are divided as to whether the ulcers precede the perichondritis or follow it. Both are probably correct. Keen shows, so far as the clinical history and post mortem appearances enable him to judge, that in 20 cases the perichondritis preceded the ulcers and caused them, while in 10 cases the ulceration had caused the perichondritis. These ulcers, in the light of recent observations and bacteriologic evidence, are divided into the specific and non-specific, both varieties presenting a group of features which permits a clinical and laryngoscopic differentiation. These specific ulcers, true typhoid lesions, are excavated, with infiltrated areas surrounding them, and are especially productive of profound tissue changes. The non-specific, due to secondary infection by any of the pyococci, are superficial lesions, only slightly undermined, with no surrounding infiltration, and which cause slight damage to the parts. Local nutritive disturbances might also result in superficial ulceration.

The position of the specific ulcer in the larynx is noteworthy and typical, as they show a marked predilection for the posterior laryngeal surfaces. Recent clinical observations, and post-mortem findings, reinforced by our knowledge of the pathology of enteric fever, tend to prove that true typhoid lesions occupy the adenoid areas normally distributed in the larynx. It is in these lymphoid deposits, situated more especially at the base of the arytenoids, posterior plate or cricoid, ventricular bands, in the ventricles of Morgagni, that true typhoid alterations, identical with those in the intestines, occur.

The epiglottis comes in for its share of typhoid involvement, not a few cases being reported in which it was alone the seat of ulcerations. Its anatomic relation to the larynx makes it play a prominent part in most cases of typhoid complications in which marked edema is present.

Most observers ignore the question of laryngeal paralysis; 20 recorded cases show that it occurs principally in convalescence, the abductor muscles bearing the brunt of the involvement, this condition is apparently due either to a peripheral neuritis or to

pressure on the recurrent nerve by enlarged lymphatic glands. Wishart¹ and MacCoy² report cases, one requiring tracheotomy, another intubation.

In the more severe typhoid affections of the larynx, the diagnosis is readily suggested by the overshadowing clinical feature of dyspnea, suffocation. It is, however, to be emphasized that a true appreciation of the laryngeal condition is sometimes masked by the patient's apathy and insensibility to pain, or by other threatening symptoms which are common to the disease. The laryngeal invasion occurs in the most insidious manner, a milder grade of inflammation being suddenly followed by a stenosis, which means a struggle with death. The onset, except in primary involvement, is late, about the third week, frequently in convalescence, when the physician's fears are lulled by the prospect of certain recovery. The initial symptoms of hoarseness and alterations in breathing, are too often attributed to weakness. They may prove "the heralds of the gravest dangers," and nothing but frequent examinations from without, and by the laryngoscope, give us the proper information.

In the milder forms of inflammation, steam inhalations of menthol in tinct. benzoin co., or spraying with menthol in liq. albolene, sucking pellets of ice, the ice pack over the neck, might prove efficient treatment. But when the stenosis once sets in, tracheotomy offers, in most cases, the only hope. It is especially indicated in necrosis of the cartilages, which frequently follows perichondritis, and in which the mortality without operative interference is 95 per cent.

Analysis of 26 of my collected cases shows that in 10 recoveries 9 were operated. In the 16 fatal cases only 4 were operated. The contrast between these figures speaks for itself.

Intubation is hardly applicable. In perichondritis, or necrosis, by interfering with the escape of pus and the necrotic tissue, it would prove worse than useless. In two of my collected cases, it was practiced with success only in one instance, a case of complete abductor paralysis.

When life is saved, what are the final results? In not a few

1. *Phila. Medical Journal*, 1901. 2. *Trs. Asso. Phys.*, Philadelphia, 1901.

cases, permanent damage to the parts by the morbid process enforced the permanent wearing of a canula. Luning's statistics show that of 60 cases recovering after typhoid perichondritis, 11 dispensed with the canula in periods varying from seven months to six years, the other 49 wore the canula permanently. Three cases from my series could not dispense with the wearing of a tube.

The treatment of post-typhoid cicatricial stenosis, by gradual dilation with bougies and special tubes, is summed up in a word, as it does not fulfill what it promised.

I now present a case of sub-mucous laryngitis complicating typhoid, which occurred in my private practice:

Mrs. F. T., aged 20, was taken ill with typhoid fever on December 1, 1902.

The clinical chart of the case, which records high and persistent temperature rises, intestinal hemorrhages, pneumonia, alarming cardiac depression and delirium, furnishes proof that the disease followed a very severe course.

During the second week patient complained of her throat, examination of which disclosed nothing markedly abnormal; daily spraying with antiseptic solution gave relief to the dryness and irritation.

On the morning of January 1, 1903, there was much hoarseness, during the day the breathing became labored, towards night the respiratory embarrassment had greatly increased, the chart records respirations, 48 to 60.

At one o'clock in the morning, January 2, Prof. Ernest Lewis, the attending physician, 'phoned me to report to him with tracheotomy and intubation instruments.

The marked dyspnea, inspiratory stridor, aphonia, and tracheal tugging, all pointed to laryngeal stenosis.

Laryngoscopic examination revealed diffused and symmetrical tumefaction over the entire surface of the larynx, the vocal cords seemed fixed on the median line, and during inspiration separated only near the posterior edges, reducing the glottis to a mere slit, through which the feeble respiratory functions of the larynx were carried on. The epiglottis appeared normal.

I suggested the local use of adrenalin solution before resorting to any instrumental or operative procedure.

A few minutes after spraying about a drachm of the adrenalin, 1-1000 solution, there was a noticeable improvement in the breathing. I repeated the spraying in about ten minutes, shortly after which there resulted such marked relief, that Prof. Lewis, considering his patient out of immediate danger, retired, leaving me in charge of the case for the rest of the night.

I ordered the spray to be kept up every hour, using the same quantity and strength of the solution, also 15 drops of adrenalin internally, every hour. The treatment was faithfully carried out and the patient, while still aphonic, appeared greatly relieved until about 12 o'clock that day, when the dyspnea again gradually set in.

Dr. Landfried was called in consultation. We both performed laryngoscopic examinations, which disclosed the following conditions: There was no tumefaction visible; the parts were blanched and contracted (this alteration had been evidently effected by the action of the adrenalin), both cords were fixed in the median line, with only the slightest separation along their posterior half during the inspiratory act. We agreed that such a condition could not be caused by ankylosis of the crico arytenoid articulation. We decided to temporize with the same treatment, hoping for absorption of the effusion which had evidently taken place in the crico-arytenoid joints.

The breathing steadily grew worse and the patient weaker. At eight o'clock that night, Professors Lewis and Elliott, Dr. Landfried and myself met in consultation and decided that tracheotomy offered the only hope. Aply assisted by Dr. Landfried, I performed, under local anesthesia, a high tracheotomy, which shortly gave the much-desired relief.

About four hours after the operation, the nurse 'phoned that there was profuse bleeding from the wound. I found the patient gasping for breath. Examination showed the tracheal tube occluded with blood clots. After removing it and introducing the tracheal dilator, impending asphyxia was averted. Dr. Lewis arrived on the scene, and together we ascertained that the bleeding, which still continued, came from below, somewhere along the lower respiratory tract. In the space of fifteen minutes, two doses, 15 minims each, of adrenalin solution 1-1000 was given hypodermically. This seemed to have promptly checked the hemorrhage.

It did not recur, and the patient did splendidly until the next evening at 1 o'clock, when I was summoned by a message that she was dying. It was no exaggeration, as I found her in a state of profound collapse, scarcely breathing, and almost pulseless. My first thought was to remove the large tracheal tube I had introduced that morning. It showed no occlusion. This crisis appeared to have been brought on by heart failure. Introducing a dilator in the trachea, however, materially assisted the feeble respiratory movement, and immediate stimulation of the heart with adrenalin, brandy and strychnin, finally proved effective in resuscitating our moribund patient.

This ended the life-menacing post-operative complications which would have undoubtedly, in each instance, caused a fatal issue but for timely assistance.

In about a week the temperature curve and general condition of the patient showed that the typhoid had run its course.

Frequent laryngoscopic examinations were made, disclosing no change in the fixation of the cords until about ten days after tracheotomy, when bilateral abductor movements were plainly discernable. About three days after the discovery, by the removal of the tracheal tube, temporary closing of the wound, the larynx was found to carry on both its respiratory and phonatory functions perfectly. The tube being no longer needed, the wound was allowed to close.

The patient's voice has not suffered the slightest alteration, and nothing remains but a linear scar on the neck, which must prove an ever-present reminder of her almost miraculous escape.

REMARKS.—The case above reported elicits the following points of interest: The prompt relief, during nine hours, which followed the local use of adrenalin.

The alarming hemorrhage which occurred a few hours after the operation, and presumably due to hypostatic congestion of the right lung, which had been previously recognized by the attending physician. Noteworthy proved the action of adrenalin, given hypodermically which, from several of my experiences with the drug given internally, I have reason to believe arrested the bleeding in this instance.

The complete restoration of the crico-arytenoid joint movements,

which guaranteed the normal respiratory and phonatory functions of the larynx, is exceptional.

The diagnosis of sub-mucous laryngitis is supposed by the laryngoscopic appearances, and by the clinical features of the case.

A perichondritis, was proven by an analysis of reported cases, is not followed by such quick and complete tissue-repair. The possibility of paralysis of the vocal cords was duly considered, but the laryngoscopic image, and the action of adrenalin, which, while it relieved the general infiltration, would have had no influence on a paralysis, argued against such a condition.

GENERAL CONCLUSIONS.—These 259 collated cases, reported in the last fifty-eight years, which for evident reasons are only approximately correct, afford eloquent proof that the subject of typhoid affections in the larynx calls for general recognition.

Evidence, bacteriologic and clinical, strongly supports the view adopted by the majority of observers, that the laryngeal involvement in most instances is a direct typhoid infection.

A high death rate, as shown by statistics, when this complication exists, teaches the salutary lesson of always examining the larynx when the danger signals of hoarseness, dyspnea, or dysphagia set in.

The favorable results which follow operative interference, offer such a contrast to the high mortality without operation, that there can be but unanimity of opinion as to its propriety.

Tracheotomy is the most approved, because in most cases the only possible surgical procedure which can save life.

SYNOPSIS.—Twenty-five cases in which Complete Reports, or Abstracts, were accessible:

LESIONS IN LARYNX.—Laryngeal Perichondritis.....	Cases	5
“ Ulceration	“	5
“ Necrosis	“	3
“ Abductor Paralysis.	“	2
“ Edema	“	3
“ Diphtheria (presm.)	“	3
Ludwig’s Angina	“	2
Abscess in Larynx.....	“	2

FINAL RESULTS—

<i>With Operation.</i> —Tracheotomy	10
“ “ Intubation	2
“ “ Recovery (Trach., 6; Intub., 1).....	7
“ “ Died (Trach.; 4; Intub., 1).....	5
“ “ Complete Recovery without Ch. Laryngeal Stenosis	4
“ “ Wore Canula Permanently.....	3
<i>Without Operation</i> —Not Operated.....	13
“ “ Died	9
“ “ Recovered!	4

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DISCUSSION.

DR. GORDON KING felt that the Society was indebted to the essayist for the thorough review and discussion of the subject. This complication of typhoid fever was rather unusual, as the statistics showed. He thought Dr. Dupuy's case was out of the ordinary, in that the stenosis is as a rule due to a perichondritis and from the fact that in his case the edema rapidly subsided showed that perichondritis did not exist. Following a true perichondritis deep forms of ulceration frequently occur, leaving scar tissue and thereby fixing the arytenoid cartilages and requiring a repeated introduction of the intubation tube and long after-treatment. Dr. Emil Mayer, at Washington, reported at a recent meeting a case in which some time ago he had tracheotomized for a perichondritis which in the end necessitated intubation, owing to the extent of adhesions that followed the inflammatory state. Referring to the use of adrenalin in this class of cases, Dr. King thought it a

very valuable agent and said that the specialists used it so extensively that they were regarded by some as cranks in the use of this remedy. He had employed it in a recent case of syphilitic stenosis, where through neglect or possibly from the use of iodides, a marked stenosis developed. Adrenalin in this case gave very prompt relief. He thought it a very valuable agent in passing over a crisis in emergencies. In the case of a general practitioner meeting these laryngeal stenoses, adrenalin would afford temporary relief and would tide the patient over until the proper surgical aid could be given. He felt personally indebted to Dr. Dupuy for so ably reviewing a subject which should be of interest to every medical man.

DR. PERKINS considered Dr. Dupuy's paper a valuable contribution. The statistics on the subject being compiled up to a recent date, will render the paper of importance in all future work along these lines. Such papers from specialists are especially useful to this Society, because the general practitioner, having his attention directed to the dangers, diagnostic points and treatment of any particular group of cases, is unquestionably more apt to recognize and better prepared to treat conditions as they arise. He felt that the Society as a whole was indebted to Dr. Dupuy for bringing this subject before them.

DR. BRUNS asked as to the cause assigned by the reader for the second crisis in his case, he failed to understand the doctor on this point.

DR. DUPUY, in closing the discussion, replied to Dr. Bruns' inquiry that he was in doubt whether the crisis was due to a blocking of tube by the thick sputum, but on feeling the pulse he soon found that the condition was due to cardiac depression and not to any respiratory obstruction.

DR. DUREL mentioned that he had used adrenalin in a case of hemorrhage of the stomach. The hemorrhage was checked in this case, but profound heart weakness followed. From this case he was inclined to think that the heart depression in Dr. Dupuy's case may have been due to the use of adrenalin.

DR. DUPUY mentioned that the adrenalin could hardly be the cause of the cardiac depression, since it was a marked heart stimulant.

DR. BRUNS said that the point raised was of great interest to the

profession, owing to the general use of adrenalin. From the physiological law that all stimulants when carried to excess will fatigue an organ and weaken its action, the probability of cardiac exhaustion following the use of adrenalin could easily be deduced. He thought that the question was well worth being kept under observation. He suggested that in the use of so powerful a drug there must be a danger point somewhere. Where is the danger point in the use of adrenalin? The effects of agents acting on or through the nervous system are notably influenced by idiosyncrasies. Good service can be rendered by giving reports on adrenalin. What antidote may be given in case of untoward effects from this drug when having been given hypodermically, there is no recalling it?

DR. L. G. LEBEUF read a paper the title of which was

Notes on the Study of Intra-Uterine Contagion of the New Born in Scarlatina and Variola.

One of the most curious phenomena of the transmission of disease, and one which seems to have been studied the least by the modern physiologist and pathologist, is the mode of contagion of the fetus through the placental circulation. Naturally we are all aware of the fact that the eruptive fevers and the contagious diseases are transmitted in this manner and statisticians give us various figures on this record, still we have a very imperfect idea of the period of incubation in these cases, the frequency of abortion or anything with reference to the protection the fetus may derive in prophylaxis from the exposure of the mother to disease. Here, in the South, we have learned through a sad chain of clinical observations to fear the plasmodium malariae during all the stages of gestation, as much as we fear the most infectious zymotic disease. Quinin is almost forbidden to us, on account of its oxytoxic effect; mercury itself must be handled carefully. What is the practitioner of the low marshes to do without either of these agents? Our experience lately at the Charity Hospital when a test was made of the blood taken from the liver and spleen of a fetus whose mother had died of pernicious malarial fever, showed the blood to be teeming with plasmodia. In smallpox and in scarlatina the mother almost invariably aborts when the disease is a serious one, especially in confluent smallpox. When the attack is slight or when

it is modified by vaccination, the fetus may be saved. Often, in smallpox, a child is born with well-marked signs of variola, showing that the disease had already run its full course *in utero*.

In the Tropics, this method of contagion must be counted upon as an important factor in the alleged acclimatization of natives to the terrible yellow scourge; undoubtedly the immunity which many of the children of these people have against this disease is due to an intra-uterine protection secured during the time of their placental nourishment.

Some French observers attempt to destroy this deduction when they quote the statistics furnished by Ternier and Serres.

Ternier relates the history of three cases which had smallpox two years after birth, when their mother had had the disease during pregnancy. Serres also relates 22 cases which he gathered, where children were born free of the disease when the mother had had variola during gestation. On the other hand, Simpson gives the history of a number of undoubted cases where vaccination of the parent during pregnancy protected the fetus. Other observers have given individual cases, when the child was susceptible to contagion and was born with evidences of an eruptive fever or eruption where the mother was not affected in the least. One of the most frequent causes for mistake in this connection is the surgical fever, by which the new-born is sometimes affected, caused by the injuries of a difficult labor, instruments, or otherwise. This I have seen often, and though it has some similarity in appearance to the redness of scarlatina, on account of the general rubefaction, it can easily be diagnosed from it by the post-febrile desquamation and the character of the fever and the enlarged glands and sore throat.

My special purpose in bringing up this subject for your consideration, is to bring to your notice the relation of one or two interesting clinical facts regarding this matter, which I have had illustrated lately in two cases.

I attended Mrs. Wm. Y. H., May 2, in her confinement. She came to New Orleans for her accouchement, which happened after the regular term of gestation. On February 10 she had been laid up for ten days with a typical case of scarlatina. She had been quite ill at that time, and was saved from premature labor by per-

fect rest and constant care of attendants. She was entirely isolated from her two year old child during that period. When she reached New Orleans, two weeks before her confinement, the position of fetus having been made out, the urine was tested, showing low specific gravity, but no albumen. On May 12 I delivered her of an eight-pound female child, and 24 hours after delivery a peculiar efflorescence began to show itself on the child, first about the face and chest. This deepened in a few hours more into an intense scarlet eruption all over the body. Child had temperature in rectum of $102 \frac{2}{5}$ and ran, during the next three or four days, through a rather typical attack of scarlatina. Throat could not be examined very easily. The submaxillary glands were very much enlarged and the child nursed with some difficulty. About the twelfth day after birth, it began desquamating over the entire body, the palms of hands and soles of feet especially. The urine was not examined, but it was diminished in excretion.

MEETING OF JULY 25, 1903.

DR. GRANER, President, in the chair.

DR. AMEDEE GRANGER read a paper on

The Electrical Treatment of the Vomiting of Pregnancy.

In choosing a subject for a paper on electro-therapeutics to be read before this Society, which is composed chiefly of general practitioners; the author thought it best to choose one which would be of interest to all and he hopes of some practical value.

There is no disease of pregnancy so common as vomiting, none which at times taxes the skill and resources of the physician more. And in its intractable form becomes a formidable complication often necessitating the emptying of the uterus after all other treatments have failed, and not rarely causing the death of the patient also.

Certainly any method of treatment which would offer a fair chance of success in those severe cases should be given a trial before resorting to extreme measures, both in the interest of the mother and fetus. The treatment which I will present to you to-night for discussion is one which is devoid of danger and when properly administered has given uniformly good results.

Graily Hewitt, in an article in the *Medical Record*, urges that a proper distinction be made between the vomiting of pregnancy, which is produced by and directly dependent upon the condition itself, and the vomiting occurring during pregnancy yet due to diseases or causes not connected with the pregnant state: such as gastro-enteritis, cancer of the pylorus, carcinoma of the liver, biliary calculi, fatty degeneration of the liver, pulmonary and cerebral tuberculosis, etc.

A still further division could be made into those cases with a marked neurotic constitution, in which the vomiting is only one evidence of the increased irritability of an already hypersensitive nervous organism; and those cases in which there is no such predisposition, the vomiting being purely reflex from uterine causes.

In a work on vibratory stimulation which is just out of press, the author, Dr. Maurice Pilgrim, summarises the action of the function of the spinal chord as follows:

1. It is the principal seat of reflex nerve action.
2. It is the center of the vaso-motor system.
3. It exercises an automatic action over the arterial tone and various viscera.

4. It is the index of abnormal action in many parts of the body. In other words a chronic irritation at the periphery or in a distant viscus is usually communicated to that nerve center in the spine which controls its nutrition and is disclosed through extreme sensitiveness to deep pressure. The sympathetic nerve centers of the uterus communicate with the third and fourth cervical and second lumbar nerves, therefore in close relation with the sympathetic branches of the pneumogastric in the neck, and we can readily understand how a reflex irritation from the uterus can react on the pneumogastric. In the case which I will report to-night there was marked tenderness on deep pressure over the exit of the third and fourth cervical and second lumbar nerves; the rest of the third was free from tenderness. The subject is worth investigating as it may prove a valuable aid in diagnosis of this and other diseases in the future.

The treatment is identical in all cases of vomiting and consists in a descending galvanism of the pneumogastric.

Following are the rules for administering the treatment as formulated by Dr. George Apostoli of Paris:

“1. *Nature and place of the application.*—In 1882 I adopted exclusively the positive galvanization of one of the pneumogastriacs, and applied, always successfully, to the right side. Later, some failures and parallel comparative experiments made me modify my first method and I suggested the simultaneous galvanization of both vagi. It is this latter method, confirmed and strengthened by long experience, which I now recommend as being the most rapid, the most active and the easiest to apply.

It consists of placing two small equally sized electrodes at the inner angle of the clavicles, at a point as near as possible to the trunk of the vagus.

As a matter of fact, it is the galvanization of this nerve at its most accessible place, and one which is easily found by the patient. Each electrode is placed about a centimeter from the end of the clavicles, grazing the upper surface of the bone, at the level of the depression which is left between the two heads of the sternocleidomastoid. Each electrode, usually held by the patient, should be small, about an inch in diameter, in order to increase the density of the current at this level and to concentrate it in situ, that is to say on the subjacent parts, including the vagus.

The current of the battery should be constant and all interruption should be avoided. It is preferable to use a rheostat in order to avoid a shock either at the beginning or end of the treatment.

2. *The Dose.*—The quantity of the current depends on the tolerance of the patient and the resistance to be overcome. There are two guiding rules: Cure the patient; do not needlessly cauterize the skin.

The average dose varies from 5 ma. to 10 ma., but it is necessary occasionally to raise it—usually for an instant—to 15 ma. This is also done gradually and following the instructions given by the patient.

The patient should be instructed to watch his sensations and tell the operator—particularly of nausea—that the quantity of current may be properly regulated.

Then by watching the meter and adjusting the current, all the fluctuations may be observed.

If, from the beginning, the current rises steadily to 5 ma. and the patient feels a considerable amelioration, all nausea disappearing, the limit is reached, for it is useless to increase the dose.

If, on the contrary, vomiting is imminent during the treatment itself, it is necessary to increase the quantity, immediately and rapidly, until one of two things occurs; either the patient feels better, or complains of the burning. Then diminish the current, and run it up rapidly to 5 ma. Then stop and increase it again at each sign of a return of the nausea prodromal of the next vomiting.

I believe that much of the success of galvanism in vomiting is due to the adaptation of the dose to the gravity of the evil, and certainly the variety is infinite, from simple, unimportant reflex vomiting to the intractable emesis which threatens the life of certain pregnant women.

It is to be remembered that women present a great difference of cutaneous sensibility, especially about the neck, and it is not wise to shock by an overdose which can provoke severe pain.

It is preferable, in the beginning, to keep to a medium dose, to acclimate them in a way, and to allow the moistening of the skin by the electrodes, with its consequent diminution of resistance.

3. *The Duration.*—The duration should be, as the quantity, proportioned to the gravity of the trouble, and, as a general rule, I say that no sitting should be ended until it produces an effect. It should then be continued until the patient says she is better, and not stopped until all nausea has gone and a normal condition has been re-established.

It is therefore impossible to determine, as some of my predecessors have done, the duration of the treatment with mathematical exactness.

It is necessary to continue the application until the patient admittedly feels well, and has no desire to vomit. Further, it is necessary to be prepared to recommence at the first sign of a return for some time after the first treatment. So from five minutes to an hour with the time for resting, may be said to be the proper duration of the first treatment.

There is no necessity in the beginning of being discouraged.

Only wait. The stomach, accustomed to vomit, frequently commences by emptying itself. Often it has the characteristics of another attack. It is therefore, necessary to wait until the patient says spontaneously: "I feel better, I do not think I shall vomit any more."

The average duration varies from ten minutes to twenty, and more, but it must be known that it can and ought to be continued much longer in some rare cases, and in these care must be taken not to scar the skin.

4. *The Time.*—Galvanism having rather a curative than prophylactic action, it is better to treat during digestion to combat the dyspepsia, or the vomiting.

So the patient is made to eat, and the current, if applied then, will insure digestion and prevent emesis.

This indication is important, the vomiting should be imminent, and the spasm arrested; that is, the patient being put in a condition favorable for vomiting and the crises averted, the pathological habitude of the stomach is broken as the pneumogastric irritation is calmed.

This is how I proceed:

First Time.—I make a preparatory treatment with a small current, for two or three minutes, the stomach being empty.

Second Time.—Without interrupting the seance, I make the patient eat, little by little, or drink that which is said to be the most apt to cause vomiting. I thus precede the difficulty by overcoming it step by step in the beginning.

Third Time.—I continue the current for a variable length of time after the ingestion of food or drink.

5. *Number of treatments.*—The treatments should be frequent at first and in the beginning all digestion should be helped by the galvanism. Later, as amelioration is observed, the intervals are lengthened. Here, again, the variable personal element enters, and the method depends on the condition of the patient.

A single application may cure a case of intractable vomiting, though more frequently a second and a third will be found necessary.

The convalescent stomach often has a relapse and it is wise to help it fulfil its functions by several treatments, in order to pre-

vent this. Usually two treatments are given each day—one in the evening and one in the morning—particularly if the first was not a complete success, and a relapse should not be allowed.

In 1882 from eight cases, four of them intractable, I told how none had vomited during the first treatment, how some again in the evening and the next day, and that from one to eight treatments sufficed to effect a cure.

Later experience confirms this, and, especially in pregnancy, a relapse is equally well treated in the same way. To recapitulate, this is a uniform treatment which I systematised in 1882, and which I have used exclusively, and always successfully, hundreds of times for vomiting.

It consists of descending galvanism, or positive pole, applied to both pneumogastrics, with variable dose and duration, and stops almost at once the derangement, be it epigastralgia, gastralgia or vomiting, in such a way as to leave beyond question the action on the vagus and its pathogenic importance.

Finally, the continuous galvanic current properly given, is the treatment for vomiting. If the symptom is purely reflex, as, for example, the vomiting of pregnancy, the action is immediate and supreme. In other cases it is extremely valuable as an active adjuvant to the classical therapeutics."

Before reporting the cases, one from my own experience and two very severe cases from a paper of Drs. Gautier and Larat, I wish to say a few words of the difficulties which we have to surmount when trying to apply this treatment at the patient's home. Also show you an instrument case made for me by Messrs. McIntosh of Chicago, which I think solves the problem, and makes the treatment both practical and convenient.

It is clear I believe from what I have read of the rules for applying the treatment that it is essential to measure accurately the amount of current used; therefore the necessity of a milliammeter. Any one who has had any experience with the galvanic current knows that the sensations of the patient are no indication of the amount of current used; therefore of the dose. The dryness or moisture of the skin, the covering of the electrode, etc., all affect the transmission of the current. Again in order to increase



Portable Battery Indicated in Dr. Granger's Paper.

or decrease the current gradually and without shock to the patient we must have a rheostat. Therefore the milliammeter and rheostat are essential to the proper administration of this treatment as of every scientific application of the galvanic current.

If you try to carry one of those so called portable batteries with a milliammeter and rheostat and from twenty to thirty cells it will not be long before you are convinced that although they may be transportable they are not portable. They are heavy, cumbersome and expensive, and if treating more than one patient at a time it would be necessary to have two such batteries or to carry one from one house to the other.

To overcome this difficulty I had McIntosh, of Chicago, to make for me the case here presented. It is light, convenient to carry and holds all the essential instruments, milliammeter, rheostat, pole-changer and binding posts.

Under this base is a drawer to contain the electrodes, cords, etc.

The case is independent of the source of electrical energy which can be derived either from batteries or from the incandescent current. If the house has the direct current we connect the case with any lamp socket by means of a Vetter's series tap and the instrument is ready for use. If, as was the case with the patient which I treated, there was no electric light current in the house, an ordinary box containing from twenty to thirty dry batteries at a cost of twenty cents each is sent to the patient's house and placed under the bed or in any other convenient spot. It only takes a few seconds to make the connections between the instrument case and the batteries and in either case we have a complete and scientific apparatus, which although designed for this class of cases, could be used just as well in any case in which the galvanic current is indicated.

As the case is light and its size is convenient it can be easily carried and two or more cases could be easily and practically treated at the same time by having either batteries or incandescent current in each house.

Case 1. Mrs. K——, primipara; good health; menstruated regularly. Menses stopped January 8, 1895; vomiting commenced February 22. The patient could retain nothing, and vomited forty-five times in the twenty-four hours, having violent epigastric

pains and frequent fainting attacks. The second week the nights became bad, the pulse filiform. She then became pale and began to lose weight. Finally, an obstinate constipation was added. The vomiting became worse, and the insomnia was complete, with great physical prostration and cerebral excitement. Drugs had no effect.

Professor Dieulefoy advised increased doses of morphin, and, if these proved ineffective, the induction of abortion.

The case had lasted thirty-six days, and there was danger of death, from inanition, when Dr. Champetier de Rives, called in on March 25, advised electricity. The treatment was commenced that evening.

The patient was able to retain half a cup of milk, and felt better. About three A. M. she became worse again. The following day at 8:30 A. M. the treatment was repeated with the same results; but the pain, when it returned, was violent.

The third treatment was in the afternoon; the fourth in the evening. A continuous improvement commenced, the nausea becoming less, the pulse better, the constipation disappearing, while on the third day she slept without morphin. These treatments were given three times a day for three days; then twice for five days. The patient could eat anything. The eighth day the cure appeared complete, but the treatment was continued once daily. On the sixteenth day she had regained her normal condition and soon left Paris.

Case 2. Intractable vomiting and constipation of seventeen days' standing; continuous and abundant salivation. Mrs. De. R., aet. forty; multipara; five sound children; good health; sixth pregnancy in October, 1894. Vomiting appeared following December. The patient could retain no food. All medication was vain. Morphin was given to induce sleep. Lavage was not tolerated. The sixteenth day the Doctor (Chapetier de Rives) advised electricity. The patient at this time was pale and emaciated, complained of great fatigue with vertigo, a nervous erethism and insomnia, and had nausea day and night. She could retain only a little kirsch-wasser. Vomiting of bile; no stool for seventeen days. December 17, 20 ma. galvanization of vagus for twenty minutes. The resistance was noticeable. This diminished in subsequent sittings.

The treatment was well tolerated, and a cup of bouillon retained. There was some nausea during the night and vomiting during the morning.

The morphin was stopped against the wish of the patient. December 18, two treatments, the negative being at the level of the umbilicus, the positive over the course of the vagus for fifteen minutes and over the back of the neck for the same length of time. Nourishment, with but one vomiting attack during the night. The constipation was first touched on the 19th, day after faradism had been given. On December 26, the patient is much better, retains food, bowels move, though a little salivation remains. The sleep is good. Thereafter but one daily treatment, until February 3, when it was stopped entirely, the patient being cured.

Case 3. Primipara. Aet. 22. Last menstruated March 8. Vomiting began April 23. Vomiting became worse May 13, and on the 15th and 16th nothing was retained. Salivation was profuse and very annoying. Treatment was begun on the morning of May 17. Positive galvanism of both vagi for fifteen minutes. The nausea disappeared and patient took some nourishment. Half an hour later she vomited.

In the evening the same treatment was repeated, but this time after the ingestion of food which was taken in a recumbent position and caused some nausea. The food was retained, the patient did not vomit any more that day. June 18 A. M., patient very much nauseated, said she knew if she took any nourishment she would not retain it.

Positive galvanism of both vagi for five minutes, the nausea left her, the current was turned off and she was given food while in a recumbent position. The apparatus was kept in readiness prepared to resume the treatment at the first sign of impending vomiting. After eating the nausea returned, and vomiting seemed imminent, after an attempt to sit up; the treatment was at once resumed and continued until she said that her stomach felt settled and she did not think she would vomit (about fifteen minutes). This treatment was repeated that evening and the patient did not vomit at all that day.

Two treatments were given daily for six days. On the 19th

the patient attempted to take some food between the treatments, but this provoked vomiting. This was the last time she vomited.

For four days more, one treatment, positive galvanism of both vagi for fifteen minutes was given after the morning meal.

No attention was paid to the diet, the patient being allowed to eat anything she called for.

DISCUSSION.

DR. NELKEN said that the subject was of too great an interest to allow it to pass without discussion. He was not specially interested in electricity, nor was he thoroughly posted upon its therapeutic properties, but he felt that if this method advocated by Dr. Granger did prove to be of value, a great step had been made in the treatment of what was at times a very trying complication. When, in the early part of the last century, electricity was first advocated as a beneficial therapeutic agent, a great rush was made by the profession towards it, hoping that the many claims made would be substantiated. From this overwhelming enthusiasm a reaction had taken place in the regular profession and it was only recently, when the X-Ray was introduced, that interest was again awakened. He believed that quacks, who advertise on a large scale their bogus uses of electricity as a panacea for all ills, had been instrumental in causing the better element to shrink from their being known as especially interested in the employment of this agent. This might occur likewise in the case of the X-Ray, limiting its employment by the legitimate practitioner to very clearly indicated conditions.

Although Dr. Granger had said that the electrical method of treating the vomiting of pregnancy had been in vogue for 21 years, it seemed to him that if the method was of such value it should have attained a much more prominent position than it does now. He admitted that he had never heard of its being used for this purpose before. He thought that a psychical element played a large part in the therapeutics of electricity. The buzz of the interruptor, the turning of large glass wheels and the general surroundings of electrical instruments, all inspired a certain amount of awe in the patient. Suggestion, at times, was unquestionably a strong factor in accomplishing much of the good claimed for electricity. The three cases reported by Dr. Granger, one of his own and two from

foreign literature, were not, in his mind, sufficient to base any definite conclusions. In a case recently treated in his private practice the patient had vomited for several days, being totally unable to retain any food on the stomach. In this case he interdicted nourishment by mouth, directed to keep a recumbent posture, rectal feeding inaugurated and in 24 hours small quantities of Ducro's Elixir were retained by mouth, and from this time on the patient made an uninterrupted recovery.

DR. THEARD believed electricity to be of service in those cases of vomiting where there was merely a hyper-excitability condition of the nerves, due to the pregnancy, and where displacement of the uterus, nephritis and other complications, could be excluded. Faradism, one pole to the epigastrium the other to the back, had its advocates; but he agreed with the essayist that galvanization of the vagus was far more efficacious. It was immaterial where the negative pole was applied, the one essential point being that the positive pole be applied to the pneumogastric in its most accessible (superficial) position, in the neck. He did not believe, with Dr. Nelken, that electricity cured by suggestion; certainly the charge of psychical effect from the buzz of the current did not apply to galvanism, which is absolutely noiseless. So potent was galvanism to the neck, that warning has been given when applying this agent to goitres (in cataphoresis), to first be positive that the goitre is of a simple variety and not of the exophthalmic type where the heart is involved and danger might follow the use of the current. He expressed his appreciation to Dr. Granger for bringing this subject before the Society.

DR. PERKINS said that he had no experience with electricity in this class of cases and was not prepared to discuss this special form of treatment. Regarding the instrument used by Dr. Granger, he thought it a very practical and convenient arrangement. Though not able to discuss this treatment of this type of vomiting, he spoke of the general method of treating such cases and mentioned a case that had recently come under his observation. The case was that of a woman about thirty years old, six or eight weeks pregnant, having had one child, now 7 or 8 years old. One miscarriage had occurred between the child and the present pregnancy. During the entire time with the first child she suffered

from nausea. With the second or miscarried child, which was carried almost to full term, she also suffered constantly from nausea. In the third instance, the nausea was attributed to biliousness and when she discovered that she was pregnant, she was terror-stricken at the prospects of another long stage of vomiting. The patient was treated for two weeks. All food was withheld for 12 hours or more, then small quantities of concentrated foods, such as panopepton, were given in increasing doses and were retained. Carbonated waters were administered, the bowels kept open and a perfectly recumbent posture insisted upon. When the vomiting was most severe, an eighth of a grain of cocain in cherry laurel water was given. The stomach would be first washed out by permitting the patient to drink large quantities of hot water, which would be immediately ejected, then the cocain would be administered. This patient had, after two weeks of treatment, been apparently relieved and had gone off to spend the summer. He did not feel justified in claiming in this case that cocain had been the cause of cessation of vomiting, but thought that the general plan of treatment had given the result. It seemed to him that these patients frequently pass through a period of extreme sensitiveness of the gastric reflexes, and during this time if rest and withdrawal of food, etc., be instituted, many obstinate cases would be avoided.

DR. DABNEY felt thankful to Dr. Granger for having brought before the Society a report of his work, and anyone having had experience with the intractable form of the vomiting of pregnancy, would be doubly appreciative in being told that there was a reliable remedy for this most trying complication. The doctor related one of his most intractable cases which had been pregnant many times, each time being sick nearly unto death. After having frequently aborted in order to save life and being so desirous of bearing a live child, she came to New Orleans and consulted him, pleading with him to make every effort to bring a child to full term. From six weeks to two months nothing at all was retained by the mouth. Rectal feeding with water and milk and coffee and rubbing with olive oil was the course of treatment pursued. There was not an hour in the day in which the patient did not vomit. Finally the child was delivered, but died one year later. She

became pregnant a second time and after trying every conceivable plan to permit the fetus to reach maturity, it was finally abandoned and abortion performed in order to save the woman's life. The subsequent pregnancy was most trying both upon the doctor and the patient, but the woman being so determined to bear a healthy child, she was willing to sacrifice almost her life in order to attain her end. In nine months a healthy child was delivered and now the mother states that no money on earth could again make her become pregnant. Dr. Dabney stated that in this case he thought the efficiency of the electrical method would be severely tested and that he was going to urge this woman to again become pregnant, promising her relief by the plan suggested by Dr. Granger, and if his patient's condition was not made more bearable, Dr. Granger could feel that he was directly responsible for the suffering.

DR. CAZENAVETTE related a case of a woman 36 years old having had 8 children and several abortions. She was now pregnant. With every pregnancy she was seriously annoyed by vomiting. He had tried dieting, oxalate of cerium, etc., but without success. Assuring himself that there was nothing abnormal in his case, he thought he would try the plan of suggestion for his patient, she being of a neurasthenic type. He spoke positively to the patient, telling her that there was no tangible reason why she should suffer from nausea and that he believed that she could be cured. A small preparation of valerian was administered and he was pleased to see the patient cease vomiting and pursue the usual course of gestation. Electricity per se he believed to have some virtue, but he also believed that there was an element of suggestion in its merits. He thought Dr. Granger had brought before the Society a subject worthy of consideration.

DR. GRANGER, in closing the discussion, said that in answer to Dr. Nelken's criticism of the efficiency of electricity being largely due to suggestion from the buzz of the interruptor, such could not be claimed against the galvanic current, it being absolutely noiseless. As far as his reporting only three cases, he mentioned that Drs. Apostoli, Gauthier and Larat had treated hundreds of cases and that he had only selected two cases out of this great number that had been treated. These two cases were of a most intract-

able type. He did not believe that suggestion could be rationally urged as accounting for the therapeutic effects of galvanism. He believed that the method of keeping the patients in bed, restricting their diet, feeding the rectum, etc., was a much harsher one than that suggested in his paper, and had failed totally to give any relief in the intractable cases he reported as having been cured by galvanism. The treatment of relapse was a very easy matter.

DR. J. B. ELLIOTT, JR., read a paper on—

Bronchiectasis; Report of Cases.

In a study of bronchiectasis I find that all the earlier, and many of the modern authors, divide the subject according to the shape of the dilatation of the bronchi, into the sacular, cylindrical and fusiform varieties; but I agree most heartily with the views of Hoffmann of Leipzig when he divides bronchiectasis into inflammatory and non-inflammatory varieties, the latter comprising the congenital, atelectactic and vicarious forms.

The shape of the dilatation must, it seems to me, be of secondary importance to the amount of inflammation present, for on the degree of inflammation will depend symptoms, prognosis and treatment.

Clinically the sacular is the most important form, involving both large and smaller bronchi, the saculations being connected sometimes by healthy bronchi, and again by tubes so contracted that air can enter on inspiration, but only escapes by most forcible expiration causing thereby one of the most distressing symptoms of the disease.

The walls of the sacs are never normal, the epithelium is thin or absent and mucous membrane much thickened, the connective tissue at first hypertrophies, as does the cartilaginous, and then contracts giving the bronchus the appearance of a string of beads. In other forms there is atrophy of all the tissues with ulceration of the lining membrane forming almost true lung abscesses; in this latter form the bronchus leading from the cavity is generally obliterated and even those leading to the cavity have been known to close entirely, giving a true encysted abscess.

In the majority of early cases the secretion in the dilated bronchi consists in mucus with a few pus cells, though at times the secretion may be perfectly clear with neither odor nor discoloration.

In the later stages of the disease the secretion is purely purulent in the vast majority of cases and often excessive in amount. The surrounding lung tissue is either emphysematous or cirrhotic—generally both, depending upon whether or not the efferent bronchi are entirely occluded. The pleuræ also soon become involved by a spread of the inflammation and strong bands of adhesion are formed between lung and chest wall, aggravating an already almost helpless condition.

As to the causes of bronchiectasis all agree that there must be some destruction of the resisting power of the tubes; this may be and most commonly is produced, by long continued bronchitis; pneumonia, phthisis, syphilis, anemia, may also be the predisposing factor, while the strumous diathesis is *invariably present* in the inflammatory forms. Whooping cough complicating chronic bronchitis is an ideal combination for the production of this disease and I personally know of such a case.

Many authors lay stress upon stenosis of bronchi as a factor in the production of the disease, citing numerous examples of pressure of aneurysms on a bronchus with subsequent finding post-mortem of sacculated tubes. Practically bronchitis, chronic in character, *plus* the strumous diathesis is the *cause of all others*, the amount of the accumulated secretion alone in many cases being sufficient to dilate the tubes irrespective of the duration or violence of the cough.

From such pathological findings we can easily deduce the symptoms. The first stage is, I may say, never diagnosed, being hidden in and by the causative disease. After a variable length of time (from 2 months to as many years), the true nature of the disease becomes apparent, the cough and increased expectoration at night and in the early morning becomes more marked, the patient begins to lose flesh then slight fever, septic in character and, even night sweats, then diarrhea and finally death after many years from continued septic poisoning. Lebert and Barth had 13 cases lasting over 10 years, 11 less than 1 year, 16 from 3 to 5 years.

I should draw a strong dividing line between the inflammatory and non-inflammatory forms, the course of the former always leading to purulent formation with a tendency to fibrosis of surrounding lung tissue and frequently becoming phthisic, while in the latter we have merely an emphysema, not only of the air vesicles but of the tubes themselves, death never occurring from the disease itself. Cough and expectoration are the main symptoms and I should be inclined to add *fever*, in spite of the contrary views of several of our modern writers. The expectoration is often continuous and in large amounts, and I have seen patients take one or two hours in the morning before they could sufficiently free their lungs from the over-night accumulation to do any active work or even converse freely.

The cough must depend largely on the amount of secretion and in my cases, at least, seem to be influenced much by change of temperature, being much less in the dry, hot months. Hemoptysis sometimes occurs from erosion of a large vessel. Pain is not constant and I have seen it in only one case, being present immediately over a cavity and undoubtedly due to a pleuritic adhesion. Clubbing of the fingers and toes is classed as a symptom, it is present in only one of my cases. Dyspnea may occur in the later stages of the inflammatory variety, but is often present throughout the whole course of the dry or non-inflammatory variety, due to the great amount of emphysema generally present.

As to physical signs; on inspection, in the inflammatory variety we are more apt to have a shrunken thorax, while the true barrel shaped chest is more apt to be present in the non-inflammatory type. Palpitation, while always decreased in the non-inflammatory, is absolutely variable in the inflammatory, depending on the freedom from, or excess of, the secretion in the sacculations and the amount of emphysema present.

Percussion, in like manner, is always hyper-resonant in the dry, but ranges from dullness to tympany in the other form.

Auscultation gives true signs of a cavity and in tubes coarse rales of ringing or metallic character, simulating strongly in some cases the metallic tinkle of pneumo-hydro-thorax. I agree with Fowler and Goodloe when they declare that the breathing is more blowing than cavernous in character.

The differential diagnosis between chronic bronchitis and the first stage of bronchiectasis is impossible in the vast majority of cases and is unimportant, the treatment being the same, but fully developed bronchiectasis should be easily diagnosed.

From phthisis the diagnosis is most difficult but the frequent examination of sputum will generally clear up the case by establishing the presence or absence of the tubercle bacillus. There are other points however, on which much reliance can be placed. Phthisic cavities usually occur at apex first, bronchiectatic never. Dullness occurs around all phthisical cavities; not so in bronchiectasis. As Ewart well says, "In phthisis consolidation precedes, excavation follows, while it is just the reverse in bronchiectasis."

From fetid bronchitis the diagnosis is often impossible except by the odor of the secretion.

As to treatment, the less said the better. Creosote in some form either internally or by inhalation, but best of all change of climate, the dryer the better, and not too high if much emphysema be present; constant care must be exercised to prevent any chilling and above all avoid tubercular colonies or sanitarium.

Operations for the emptying of the bronchiectatic cavities have been tried with very poor success.

Case No. 1. Mrs. A. age 60, saw for first time five years ago, gave history of having had cough continuously during the winter months for several years preceding. General appearance anemic with hectic flush, very thin, having occasional febrile attacks lasting week or more, never going over 102 F in the evening; constant cough with rather abundant expectoration; occasional night-sweats; very susceptible to any change in weather; slight cyanosis; loss of flesh very gradual. On examination found sunken supra and infra-clavicular regions; expansion of lung almost imperceptible, both sides about same. Palpation gave decreased fremitus in spots with increase at other points. Percussion gave well marked scattered dullness posteriorly with an occasional tympanic note. Auscultation showed large metallic moist rales all over both lungs, especially posteriorly; few sibilant rales; cavernous breathing but no bronchial; absence of all breath sounds at some points. Heart showed dilation of both ventricles.

In this case there has evidently been a marked fibrosis of the lung around the dilated tubes, a case of several years duration. At present patient is not much thinner than when first seen but has more frequent febrile attacks and is much weaker. No tubercle bacilli have ever been found in the sputum, nor has it any odor.

Treatment has been creosote and occasionally stimulating expectorants when the secretion became very tenacious and hard to expel; change of climate has given only temporary relief; is much better during dry summer months. One son of patient has had tuberculosis cured by prolonged trip West.

Case No. 2. Mrs. B., age 64; no history of phthisis in family; up to five years ago has been strong and attended to usual household duties; no history of recent whooping-cough or pneumonia; commenced by having attacks of bronchitis 3 or 4 times during each winter, for last three years has had a constant cough from Oct. to May, for which numerous medicines have been tried with only temporary relief; has had frequent attacks of dyspnea following exertion. Examination reveals rather full chest with tendency to barrel-shape; poor expansion; fremitus decreased; respiratory sounds decreased but blowing in character. Percussion gives hyper-resonance; expectoration never profuse and frequently absent during dry months; never any fever present showing it to be yet in the non-febrile class; no tubercle bacilli ever found. The character of the respiration alone caused me to differentiate it from ordinary bronchitis with accompanying emphysema. Creosote has been used here with slightly beneficial results, but a change of climate has acted very favorably and the prognosis is good for a long life.

Case No. 3. Mr. G., age 50; no history of tuberculosis in family; no acquired or congenital syphilis; never sick prior to Jan. 1, 1902; has lived in Tennessee and Arizona and in New Orleans for past 5 years. For past ten years has been engaged in the distillation of tar products and for past 4 years has constantly inhaled strongest of creosote and turpentine vapors. Average weight prior to attack 150 pounds. Commenced to have hacking cough about January 1, 1902; grew worse month by month; no fever first 3 or 4 months; did not stop work nor consult physician. About July

1, cough became very constant, especially in the morning with increased expectoration and slight rise of temperature in evening with pain over middle lobe of right lung. Seen by me for the first time about September 1, 1902; had then temperature of 101 degrees F., every evening, with hectic flush and fairly profuse expectoration; cough hard as if there was much difficulty in dislodging the sputum; occasional night-sweats; felt fairly well in the morning, but could do no work after 2 p. m. On examination I found rather hollow chest especially in infra-clavicular regions; intercostal spaces sunken. Palpation gave decreased fremitus slight over both lungs. Percussion normal except over right middle lobe, where found well marked tympany.

On auscultation found sibilant and sonorous rales all over both lungs with gurgles and cavernous breathing over small area of middle lobe of right lung anteriorly. Frequent examination of sputum revealed no tubercle bacilli. These examinations were continued weekly for 2 or 3 months.

I gave stimulating expectorants and creosote and nourished freely with alcohol. After month of rest patient went to Tennessee and seemed to be improved, the fever gradually declining and cough perceptibly lessening; while on trip had an attack of rheumatism; returned to New Orleans during early winter months and resumed work in the creosote works, but took care not to be so exposed to the fumes from the distillery. For past 5 months has had little or no fever; sputum examination still shows no Tubercle. At present (July 19, 1903), weight about stationary at 140 lbs.; no fever; cough only present once or twice a week and then comes in paroxysms with a fair amount of expectoration; appetite good; no pain over lung; no night-sweats. On examination this date, found no rales whatever in lungs; blowing respiration well marked over the cavity in right middle lobe; no dullness on percussion. Patient says he is very susceptible to any change in weather. Examination of blood shows no increase in Eosinophiles, as is sometimes the case in bronchitic asthma; the differential count showed small lymphocytes 19%; large lymphocytes 14%; polymorphoneutrophiles 05%; eosinophiles 16%; an increase in the large lymphocytes.

This case evidently followed a chronic bronchitis, which was

directly caused by the irritating fumes from the Creosote and Tar Distillery.

Prognosis in this case I believe to be excellent, but would be much improved by a prolonged stay in a dry climate.

My thanks are due Dr. M. Couret and Dr. J. D. Martin for the differential blood count.

DISCUSSION.

DR. BECHET asked of Dr. Elliott if creosote was constantly administered in his cases.

DR. ELLIOTT answered that it was not given regularly, but in intermissions. Creosote by inhalation was recommended. Dullness on percussion was elicited in these cases when the cavity was filled with secretions. After violent coughing or when these cavities were empty dullness on percussion was never detected.

DR. PERRILLIAT, read a paper on—

Ovarian Cyst and Ascites.

The genesis of cysts of the ovary has given rise to numerous controversies in the past, and is still at present of an uncertain status, in spite of the greater light thrown upon the subject by perfected methods in the laboratory. The old conception of hydatids made way in 1807 for the theory of Meckel, who looked upon them as dropsical effusions in the Graafian follicles, and this theory was accepted with certain restrictions; the follicular theory being applied to simpler cystic accumulations only, unilocular or multilocular, whereas more complex forms were accounted for by the so-called colloid degeneration of the ovarian stroma. Then followed the recognition of the true predominating element in the production of the classical ovarian cyst, the epithelium. Klebs and Waldeyer first sought it in the embryonic development of the ovary. The surface of the ovary in the embryo is covered with germinative epithelium, which gradually is transferred into epithelial tubes, known as Pfluger tubes, which by division and sub-division give birth to the Graafian follicles. Waldeyer went so far as to trace the cause of all these cysts to a congenital origin, claiming that these tubes were susceptible of development even before puberty and have been found in the new-born the size of a

pea and, on the other hand, were found in the ovary of a woman thirty years old. Admitting this theory, all cystic accumulations are at first composed of one little pocket lined with epithelium. Several of these little primitive cysts by fusing together eventually may form the largest cystic accumulations. These cysts are, therefore really and truly epitheliomata from a histologic point of view. But the taint of malignancy which the word epithelioma carries with it has caused it to be discarded clinically and adenoma has been suggested and almost universally accepted. Whether or not they are really originated in Pfluger's tube may be questioned. But that they are produced by the multiplication of the glandular elements of the ovary, is no longer the subject of any doubt.

Macroscopically, a cyst consists of one or more pockets containing a fluid of varying density and color. They may vary in size from that of an orange to large masses weighing upward of one hundred pounds and containing several gallons of fluid. When uncomplicated and free from adhesions with surrounding organs, the outside appearance is smooth and glistening, round or oval if the accumulation is unicystic, irregular in outline and presenting bosses, if polycystic, the walls being pearly white, or bluish, or pinkish in color, the pearly bluish white predominating. The outer surface is found on histological examination to be composed of connective tissue arranged in layers parallel to the outer surface; the inner surface being richly provided with epithelial cells, sometimes ciliated. In color the inner surface is glistening and of a bluish or pinkish hue, sometimes presenting irregular brown, slightly raised patches representing the site of old hemorrhages. The blood supply is derived from the anastomosis of the uterine and ovarian arteries and reaches the tumor through the pedicle, which is the narrowed portion of the tumor. The character of the fluid is thinner in large cysts than in smaller ones as a rule, and in color may be yellow, gray or grayish brown, the color depending on the extent of the hemorrhage which has taken place in the cyst cavity; rarely clots are found. The specific gravity varies from 1010 to 1030. The fluid itself is the product of the active secretion of the epithelial cells, together with a transudation of serum from the blood vessels, and the degeneration of the cells, some of them containing yellowish pigment, imparting to the

fluid its color. At one time a great deal of importance was attached to the finding of a paralbumin and great hopes were founded on its presence in differentiating cysts from ascites. Investigations along this line have led to the discovery by Pfannenstiel of a metalbumin, pseudo-mucin, which is produced from the protoplasm of the cells lining the cyst cavity and found only in the classical glandular ovarian tumors. Never in normal ovaries or dropsical Graafian follicles, and in ascitic fluid only in the presence of a tumor, also containing pseudo-mucin. This is important to bear in mind and, as illustrated in the case which I am about to report, might have had a most essential bearing in establishing a positive diagnosis had not other physical signs removed the doubt previously.

A history of this case brings out one or two questions of great practical interest in the clinical aspect of cystic accumulations in the abdominal cavity: 1st., The differential diagnosis between ascites and ovarian cyst; and, 2nd., The rupture of cystic accumulations in the abdominal cavity.

The patient was transferred from one of the medical wards of the Charity Hospital to the gynecological service. Age 22; born in Missouri; began menstruating at 12; always painful; regular; one week; condition, single. Three years ago she noticed swelling of the abdomen, which gradually increased in size until last July. At that time the swelling was hard, round and about the size of an ordinary pregnancy. The tumor disappeared suddenly. For a period of three weeks after the disappearance of the tumor, the patient gave a history of depression, loss of appetite and gradual emaciation. From that time on the tumor reappeared slowly until the time of admission into the Hospital. One month before being transferred to the gynecologic service she was tapped and a large quantity of dark-brown fluid withdrawn. On examination, in the dorsal position a flattened condition of the abdomen was observed with a slight sagging at the sides and a well-defined small, round mass visible in the hypochondrium encroaching upon the right iliac region. Upon close examination a little red cicatrix was observed in the median line, midway between the symphysis and the umbilicus. Palpation revealed the mass to be hard; the abdomen gave a sense of resistance and fluctuation, when the hands

were moved from side to side. Percussion revealed absolute dullness over the mass, but dullness not so well marked over the rest of the abdomen. From the patient, however, it was learned that the large abdominal projection which existed before had been tapped and that a large quantity of dark fluid had been withdrawn. At once a multi-locular cyst was suspected, whose contents had been partly withdrawn by tapping from the large pocket, leaving a little pocket rendered very tense by accumulation of fluid and explaining the presence of the small hard mass. A bi-manual vaginal examination was then made and the uterus was found normal in size, pushed over a little to the left and a sense of fluctuation detected in the hard mass. The uterus was movable slightly. Further than that no more knowledge was obtained bi-manually and the question remained to be decided whether we were dealing with a solid tumor with ascites, a small cystic accumulation with ascites or, as at first suspected, a multi-locular cyst with a tense small pocket, and a large pocket partly emptied by tapping. Placing the patient in a sitting posture, the dullness was found to change, as it would in ascites. In fact, had not the tapping given us an opportunity of judging of the nature of the fluid, the dynamic conditions present were such as to simulate a free accumulation of fluid in the cavity, the fluid in the pocket being allowed to change its level by the flaccid condition of the cyst wall. A small cyst and a small ascitic accumulation are not so easily mistaken. Ascites more likely simulates a very voluminous cyst, filling the abdomen and consequently indefinitely outlined. The classical signs of ascites are: Flattening of the abdomen, dullness occupying the lower portion of the abdomen and limited by a line with its concavity upwards, when the patient is erect. In the lateral decubitus the dullness is in the flank and over the iliac fossae, the tympanic note of the supernatant intestines being found on the opposite side, where it did not exist before. This displacement is very characteristic when it can be obtained, as is likewise the sensation of fluctuation when it can be obtained. But if we have, for instance, a sudden development of ascites, with the abdomen tense, hard and giving a sensation of fluctuation, its displacement by a change of posture is effected with more difficulty, and the percussion note does not give a correct indication. Again, in a case

like the one under consideration, the condition is such as to easily lead to an erroneous diagnosis. Kelly mentions a notorious example of this kind. The viscid, dark character of the fluid drawn, however, weighed the balance in favor of a cyst. Had the fluid been clear, uncontaminated by previous hemorrhage, we can easily recognize the great assistance of the finding of pseudo-mucin by a chemical examination in clearing up doubt. The surgical indication was clear and a laparotomy was performed, and, as suspected a multi-locular cyst removed, the larger pocket extending almost up to the diaphragm and adherent to the anterior abdominal wall in front.

The second point of interest in the history of the patient is that of rupture. Of the causes which may bring about rupture, of large cystic pockets, traumatism plays an important part—blows, force and violent efforts and vomiting may bring it about. Again, a slow thinning of the cyst wall, following a fatty degeneration caused by thrombosis, or by a torsion of the pedicle, may cause a spontaneous rupture, which most frequently takes place in the abdominal cavity and is reabsorbed by the peritoneum, if the character of the fluid is not too irritating. Such an occurrence is beautifully illustrated in the history of this case, the sudden disappearance of the tumor, followed by a period of depression lasting two or three weeks, during which the reabsorption of the fluid took place. As graphically expressed in the words of the patient herself, “during that time her stomach was as flat as after the operation.”

DISCUSSION.

DR. LEMANN said that very little could be added to Dr. Perrilliat's paper, but he wished to say a few words about the pathology and diagnosis of this class of cases. Cysts of the ovary were divided into two classes, namely, retention cysts (Graafian follicle cysts and corpus luteum cysts), and, secondly, cysts of new formation, which were true tumors. In the latter type of cysts it is impossible to make prognosis as to their tendency to malignancy. Papillomatous cysts were more malignant than cyst adenomata. Contrary to expectations, some cases of papillomatous cysts, where neighboring structures were apparently involved, were cured. Drysdale's corpuscles had been considered pathognomic of ovarian

cyst, but they had recently been found in connection with other collections of serum. As to the pseudomucin he thought it may be of assistance in making a positive diagnosis, but he was not ready to accede that it was pathognomonic.

DR. PERRILLIAT, in closing the discussion, stated that he was of the opinion that multiple ovarian cysts were not merely caused by retention of fluid in the Graafian follicle. The Pfluger's tubes are the progenitors of the Graafin follicle in the embryonic development of the ovary. If a Pfluger tube does not reach the adult stage, it is a potential cyst, which only needs an exciting cause to begin its cellular activity. This explains how a blow in the ovarian region can precipitate a cystic change in the ovarian tissue.

DR. LANDAUER reported

A Case of Adeno-Carcinoma of the Uterus.

Mrs. R., age 32. Has been married over 9 years. Has had 3 children; oldest 7, youngest nearly 3. No miscarriages. Family history entirely negative; father and mother living and healthy; 2 sisters and 1 brother, 1 sister dead, aged 30 (pneumonia); 1 brother dead, aged 23 (typhoid fever). Previous history: Has had diseases of childhood, pertusis, rubeola and varicella; had malarial fever five years ago. Present history: was well up to about 3 years ago, that is until after the birth of her youngest child; previous to that menses were always regular every four weeks, lasting from 2 to 5 days and profuse and not painful, though occasionally felt some pain. About 3 years ago she noticed that her menses were not as regular as they had been—they would start a few days sooner or later than she expected them to and would last sometimes a few hours only; at other times 6 to 8 days; sometimes they were very profuse and at other times scanty; sometimes used as many as 9 or 10 napkins daily. No pain, though about a year ago she began to notice that she would have some pain just after menses. Had never had leucorrhœa before three months ago, and then noticed it came just after menstruating and each period since then she has had it and it persists from three to five days and once lasted for a week. Sometimes the discharge had an odor; this was easily verified on examination.

Examination: Uterus lay well forward and enlarged to no appreciable extent; ovaries and tubes palpable, but not abnormal, lay well forward and high, not bound down by adhesions. Cervix slightly oedematous and presents a tear in anterior lip to the left of antero-posterior median line; microscopical examination revealed a well-pronounced adeno-carcinoma.

Correspondence.

Editors, New Orleans Medical and Surgical Journal:

GENTLEMEN—In Professor S. E. Chaillé's excellent paper on "The Stegomyia and Fomites in Yellow Fever," which was reproduced in the July number of the JOURNAL, from the *Journal A. M. A.*, May 23 last, there appears the following statement with reference to Southern cattle fever, about which the Professor had evidently been misinformed: "Now, the infecting germ persists in malaria often for months and years, and in cattle fever probably for life; and this long persistence of the germ in healthy immune cattle caused, until recently, the erroneous belief that infected ticks infected their own eggs."

A study of the life-history of the cattle-tick (*Boophilus annulatus*) will reveal the fact that the piroplasma bigeminum, the organism of Southern cattle fever, is transmitted through the agency of the "seed-tick," or, in other words, it is at this early stage (the first after hatching) that the parasite becomes attached to cattle, and does not again drop off until it is matured. So that, if the tick, in this early stage of its existence, is capable of transmitting the organism, it is evident that the infection must have passed with it, from the female parent tick, through the egg to the seed-tick. In fact the writer has sent by mail to other States, above the tick-infested area, for experimental purposes, engorged female ticks, which laid eggs that hatched, either en route or after having arrived at their destination, and the minute ticks from these eggs, after being placed upon non-immune cattle, produced the fever in these animals.

Again, one of the methods adopted to bring about immunity, artificially, is by lightly infesting susceptible cattle with young ticks, which had previously been hatched under artificial conditions in breeding cages in the laboratory.

The reason for the long persistence of the germ in healthy immune cattle, is due, chiefly to the fact that, in the "tick-belt," as it is called, the young animal is inoculated in early calfhood, and almost without interruption (except that ticks are fewer in number in winter than in the warmer season of the year), forever afterwards, during its lifetime, being inoculated by ticks, which ultimately brings about complete resistance to the effect of the organism.

It seems, therefore, to be an undisputed fact that, "infected ticks infect their own eggs;" that is, so long as they pass from cattle to cattle only. But, and here is perhaps where Professor Chaillé either was misinformed, or, misinterpreted the information, if the cattle-tick should become parasitic on the horse, or other animal insusceptible to Southern cattle fever, then, this non-susceptible host, not being able to harbor the specific germ, can not furnish it to the tick, and, in consequence, it is not likely that it would be found in the tick's egg.

I feel that I ought to apologize for troubling you in this matter, which is of minor general interest, and only from a bacteriologic or comparative pathologic standpoint. Yet, the statement alluded to having come from such an eminent authority as Dr. Chaillé, and, therefore, accepted as indisputable by pathologists throughout the country, I felt it to be my duty to draw attention to it, in order that an erroneous impression with reference to the pathology of bovine tick fever might not go uncorrected.

Very sincerely yours,

W. H. DALRYMPLE, M. R. C. V. S.,

Baton Rouge, La., August 10, 1903.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The *Myxococcidium Stegomyia*.

We have received the very interesting report of the Working Party No. 1 of the Yellow Fever Institute, which has been formed within the Public Health and Marine Hospital Service.

The Party was composed of Dr. Herman B. Parker, Assistant Surgeon of the Service, Dr. George E. Beyer, acting Assistant Surgeon, professor of biology at Tulane University, and Dr. O. L. Pothier, acting Assistant Surgeon, who is the pathologist at Charity Hospital, New Orleans. Their field was at Vera Cruz.

The following are the conclusions announced by the above named party:

“1. That the bacteriological examination of the blood of cases of yellow fever during life and the blood and organs at autopsy performed immediately after death in uncomplicated cases is negative.

“2. That *Stegomyia fasciata*, when contaminated by feeding on a case of yellow fever 41½ hours after the onset of the disease and subsequently fed on sugar and water for 22 days, 11½ hours, can, when permitted to feed on a non-immune individual, produce a severe attack of the disease.

“3. That *Stegomyia fasciata*, contaminated by feeding on a case of yellow fever and after varying periods killed, sectioned, and appropriately stained, presents with regularity a protozoan parasite, the *myxococcidium stegomyia*, that can be traced through a cycle of development from the gamete to the sporozoite.

“4. That *Stegomyia fasciata* fed on blood from a case of malarial fever, or normal blood, or artificially fed, does not harbor the parasite indicated in conclusion 3.”

The report goes into the details of the experiments and investigations and contains, in addition, valuable data about previous

investigations, about the stegomyia, about its newly-discovered parasite, including many illustrations of both the latter.

The discovery of the parasite promises to be of enormous importance to this country, especially to the South, and to medicine. We say promises to be, because we believe that the protozoa, or some positive evidence of them, must be discovered in the blood or organs of the individual suffering with yellow fever before the chain of evidence can be considered complete, also because the practical benefits of the find must yet be evolved.

We congratulate the members of the Party upon their work and its results. We could do so with more enthusiasm did we not understand that they have not rendered unto Cæsar that which is his due in the matter of credit for the discovery. One of the Party we are told, has even protested strongly against the scant liberality if not justice of the official report in this regard.

As the Surgeon-General of the Service is in possession of the facts of the case, we trust he will see to the publication of the whole truth relating to the credit for the discovery. It is now high time as the report is dated March, 1903. Until we see whether he intends doing so or not we shall say nothing further on the subject. However, we are not prepared to endorse the name proposed by the Party for the parasite, the *myxococcidium stegomyia*, Parker, Beyer, Pothier.

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary, 163 University Place,
New Orleans.

NEXT MEETING, LAFAYETTE, LA., MAY 3, 4, 5, 1904.

OFFICERS—President, Dr. J. M. Barrier, Delhi; 1st Vice President, Dr. L. G. LeBeuf, New Orleans; 2nd Vice President, Dr. F. J. Mayer, Scott; 3rd Vice President, Dr. Oscar Dowling, Shreveport; Secretary, Dr. Wm. M. Perkins, New Orleans, Treasurer, Dr. M. H. McGuire, New Orleans.

COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St Charles St., New Orleans; S. L. Williams, Sec'y, 5th Cong. Dist., Oak Ridge; J. F. Buquoi, 1st Cong. Dist., Point-a-la-Hache; F. R. Tolson, 3d Cong. Dist., Lafayette; N. K. Vance, 4th Cong. Dist., Shreveport; C. M. Sitman, 6th Cong. Dist., Greensburg; C. A. Gardiner, 7th Cong. Dist., Bristol.

Chairman Committee on Arrangements, Dr. F. J. Mayer, Scott, La.

LAFAYETTE PARISH HAS ORGANIZED AND EXTENDS A CORDIAL WELCOME TO THE STATE SOCIETY FOR 1904 MEETING.—Two meetings have already been held, and another is called for September 5. At the organization meeting the following was unanimously adopted:

“That the Lafayette Parish Medical Society returns thanks to the State Society for having selected Lafayette for its next annual meeting, and assures the profession of the State a hearty welcome.” Dr. F. R. Tolson, the councillor of that District, and Dr. F. J. Mayer, Chairman of the Committee on Arrangement, write enthusiastically of the warm welcome which will be extended to the State Medical Society. The physicians of Southwest Louisiana should feel that the State Society expects to come into closer touch with the whole section by its choice of a meeting place for 1904, and the Lafayette meeting will naturally be characterized by that energy and progressiveness for which the section is noted.

The marked success of the Shreveport meeting has encouraged further trial of the plan of meeting from time to time in different sections of the State, and certainly the special advantages sought by this plan were well exemplified at Shreveport. An impetus was given to medical organization in North Louisiana by bringing the workings and the benefits of the State Society to the notice of many

physicians who had previously given the matter little thought, and members from a distance received a vivid impression of the growth, progressiveness and hospitality of Shreveport. It is well for us all, while working for the upbuilding of our own towns and parishes, to take cognizance of what is going on in other localities that we may feel proud of the achievements of the entire State.

The State Society has fixed upon New Orleans as its permanent domicile, and of course a majority of the annual meetings can best be held in the principal city of the State, but occasional meetings may well be held in some of the smaller rapidly-growing centres of population.

An Open Letter from the President.

To the Members of the Louisiana State Medical Society:

I take this opportunity of addressing you through the medium of the JOURNAL, in the interest of the Louisiana State Medical Society. Three months have now elapsed since the Society adjourned to meet in Lafayette next May. The profession and citizens of Lafayette have already commenced to make preparations for the entertainment of the Society and promise to make the social feature of the meeting one long to be remembered. They are not making arrangements for any special number, but desire the entire membership of the Society to come and a hearty welcome awaits each and every one.

To unite the medical profession of Louisiana in close, compact, organization is the primary object of this Society. The spirit of organization is pervading every calling and profession in this broad land. Let this infection take hold of the medical profession until every eligible physician in the State is a member of the State Society.

I am fully convinced that the quickest and most efficient means to this end is the formation of parish societies.

The advantages of parish societies are many, but their greatest benefits are the development and cultivation of a fraternal spirit. Doctors are accused by the laity, sometimes justly, of envy and jealousy among themselves, and the meeting together, smoking cigars out of the same box, chewing from the same plug of tobacco and eating around the same table, will tend to create a brotherhood and develop a community of interests. The meeting several times a year with your parish confrères in social and professional intercourse, and the meeting once a year with the profession of the entire state is a source of enjoyment and profit that can not be

estimated in dollars and cents. It is with great pleasure I note that a number of parishes have already been organized.

Permit me to make an urgent appeal to each member of the Society to rally around the standard of the Louisiana State Medical Society. Let *organization* be our motto and let us not be content until every physician in the State is in the full enjoyment of its rights and privileges.

Members of the profession who are not members of the Society, we invite you to join in the procession. Come and go with us, we will do you good. You can help us and we can help you. In union there is strength.

Commence in time to make preparations for the meeting in Lafayette. All are invited to share in the program. Do not wait to be invited to present a paper. YOU have something that would be of interest.

I thank you for the honor you have conferred on me and if any mistake has been made, you made it. And now to minimize what may have been a mistake, just labor from now until next May for the success of the Louisiana State Medical Society and next time be more careful.

With best wishes to each one for health, happiness and success, and hoping to meet you all in Lafayette next May, I am,

Yours fraternally,
(Signed)

J. M. BARRIER,
President.

BEFORE A CHARTER CAN BE ISSUED TO ANY PARISH MEDICAL SOCIETY, it is necessary for written application to be made by the Parish Society Secretary, and for a copy of the Constitution and By-Laws adopted by the Parish Society to be forwarded to the Secretary of the State Society.

In the following parishes the work of organization is being discussed and meetings are hoped for before long: Franklin, Winn, Avoyelles, Iberville, West Baton Rouge, Caddo, Calcasieu, Terrebonne, Acadia.

The Shreveport Medical Society has decided to continue its individuality of organization, and the Caddo Parish Medical Society will be organized shortly.

THE ORLEANS PARISH MEDICAL SOCIETY has appointed a committee of three for investigation and report upon changes which will be rendered necessary by affiliation with the State Society. This example might well be followed in those parish organizations which have as yet made no definite provisions for affiliation.

ONCE MORE THIS DEPARTMENT WISHES TO EMPHASIZE the necessity for direct communications from officers, councillors and parish societies. Rumors of work being done all over the State are continually coming in, but in the absence of definite official information, it is impossible to make official reports to our members. The first duty of a newly-elected secretary should be to report the organization meeting to the State Society through its Secretary. Inquiries are constantly being received for a correct list of Parish Societies. On March 31, 1903, the State Society recognized as having a quasi-affiliation the parish societies of Avoyelles, Caldwell, Lincoln, Morehouse, Orleans, Plaquemine, Vernon, and the Shreveport Medical Society. Since that time six parishes have organized. The following data are the most correct obtainable up to August 20, 1903. The Secretary will be glad to be notified of any mistakes in this list, which is published largely in order to find out the exact status of parish organization in this State. Unless the parish secretaries will hereafter keep the State Secretary posted, we can not maintain an accurate list. Some of the Societies listed below have not been heard from since last March. Some of them have never been heard of at all officially. So far no parish society in the State has affiliated with the State Society under the new charter.

AVOYELLES PARISH MEDICAL SOCIETY, membership 8, President, Dr. C. J. Ducoté, Cottonport; Vice President, Dr. W. G. Branch, of Bunkie; Secretary-Treasurer, Dr. D. B. Davis, of Bunkie.

CALDWELL PARISH MEDICAL SOCIETY, membership 7; President, Dr. O. A. Biggs, Columbia; Vice President, Dr. W. H. Haugh, Columbia; Secretary-Treasurer, Dr. O. W. Crosby, Clarks.

DE SOTO PARISH MEDICAL SOCIETY, organized April 23, 1903; Membership 10; President, Dr. H. C. Stokes; Vice President, Dr. E. Davies, Mansfield; Secretary, Dr. J. C. Calhoun, Mansfield; Treasurer, Dr. E. I. Persinger, Mansfield.

LAFAYETTE PARISH MEDICAL SOCIETY, Organized July 11, 1903. President, Dr. J. P. Frances, of Carencro; Vice President, Dr. J. D. Trahan, of Lafayette; Secretary and Treasurer, Dr. F. E. Girard, of Lafayette. A constitution and by-laws on the lines suggested by the State Society were unanimously adopted. The following signed as charter members: Drs. J. D. Trahan, F. J. Mayer,

A. R. Trahan, F. R. Tolson, M. R. Cushman, J. F. Mouton, L. A. Prejan, Z. J. Frances, J. P. Frances, Thomas B Hopkins, George Strahmor, H. D. White and F. E. Girard. The next regular meeting of the Lafayette Parish Medical Society will be on September 5, and every member of the medical profession of the Parish is requested to attend, as there is important business to be transacted.

LINCOLN PARISH MEDICAL SOCIETY, organized April, 1902. Membership 10; President, Dr. R. Roberts, Ruston; Vice President, Dr. S. L. Poole, Simsboro; Secretary, Dr. S. L. White, Ruston; Treasurer, Dr. R. F. Harrell, Ruston. Meets first Tuesday of each month. Meetings always well attended.

MOREHOUSE PARISH MEDICAL SOCIETY. Membership 15. Will affiliate. President, Dr. C. L. Hope, Oak Ridge; Vice President, Dr. Charles D. Clark, Mer Rouge; Secretary-Treasurer, Dr. O. M. Patterson, Bastrop.

ORLEANS PARISH MEDICAL SOCIETY. Organized, 1878. Membership, 218. Meets second and fourth Saturdays of each month. Has appointed special committee to report on details of affiliation. President, Dr. E. J. Graner; First Vice President, Dr. J. A. Storck; Second Vice President, Dr. O. Joachim; Third Vice President, Dr. O. L. Pothier; Secretary, Dr. S. M. D. Clark; Treasurer, Dr. W. H. Seeman; Librarian, Dr. Homer Dupuy. Additional Members Board of Directors, Drs. John Callan, Herman B. Gessner and Wm. M. Perkins.

PLAQUEMINES PARISH MEDICAL SOCIETY. Organized February 15, 1903. Membership 9. President Dr. J. N. Thomas, Quarantine; Vice President, Dr. V. O. Schayot, Pointe-a-la-Hache; Secretary-Treasurer, Dr. J. F. Buquoi, Ste. Sophie.

RAPIDES PARISH MEDICAL SOCIETY. Organized May 18, 1903. President, Dr. W. W. Ashton, Alexandria; First Vice President, Dr. Bailey; Second Vice President, Dr. J. D. Everett, Lecompte; Secretary, Dr. C. J. Grémillion, Alexandria; Treasurer, Dr. J. L. Wilson, Alexandria.

RICHLAND PARISH MEDICAL SOCIETY. Organized July 15, 1903. Membership 8. President, Dr. D. R. Sartor, Alto; Vice President, Dr. H. B. Wren, Rayville; Secretary-Treasurer, Dr. H. F. Wilson, Rayville

SABINE PARISH MEDICAL SOCIETY. Organized July 24, 1903. Membership 16. President, Dr. G. W. Mott, Converse; Vice President, Dr. J. M. Middleton, Fany; Secretary, Dr. D. H. Dillon, Fisher; Treasurer, Dr. W. P. Addison, Negret. Next meeting first Wednesday in October.

ST. LANDRY PARISH MEDICAL SOCIETY. Organized July 9, 1903.

VERNON PARISH MEDICAL SOCIETY. Organized March 4, 1903. Membership 6. President, Dr. M. R. McAlpin, Leesville; Vice President, Dr. C. C. Self, Hornbeck; Secretary, Dr. F. W. Dortch, Deridder; Treasurer, Dr. J. H. Word, Leesville.

PLAN FOR ORGANIZING A PARISH MEDICAL SOCIETY.

The following plan for organizing a Parish Society may be an aid for those about to begin such work. The steps are in accord with the regulations of the State Society.

I. Write to the State Secretary for an official list of the registered physicians of your Parish.

II. Revise this list carefully by adding omitted names and by noting those who have died, removed, who are colored or quacks or who are otherwise ineligible.

III. Return this list to the State Secretary and keep a copy.

IV. Fix a date for an organization meeting, after a conference with the councillor of your district and physicians in your Parish who are apt to be interested.

V. Send an invitation to every reputable physician in the Parish to meet at a time and place as convenient as practicable to the majority. (Let no petty personal differences or jealousies prevent this invitation from being sent to every reputable regular physician in the Parish.)

VI. Elect a temporary chairman.

VII. Elect a temporary secretary.

VIII. Have a free and full discussion as to whether you wish to organize at once or whether anything is to be gained by further correspondence, invitation, etc. (It is better to organize at once if the physicians of the Parish have had a fair opportunity of getting to the meeting.)

IX. Have someone read the proposed plan for a Constitution and By-laws, and then re-read it section by section, with free discussion and if necessary any desired modification.

X. Have the Constitution and By-Laws adopted as a whole and signed by every member present.

XI. Have the Secretary enroll the names of the "Charter Mem-

bers," with their addresses, colleges and years of graduation and dates of registration in Louisiana.

XII. Have the Treasurer collect the annual dues, including the State Society dues.

XIII. Arrange for the next meeting and adjourn.

XIV. Introduce all members not yet acquainted with each other.

XV. Let the Secretary send at once to the Secretary of the State Medical Society a notice of the meeting with a list of officers and charter members, the date set for the next meeting, and any other matters of interest.

XVI. If any changes to the proposed Constitution were made, send a copy to the State Secretary, as the State Society can not grant a charter unless it has on file a copy of the Constitution and By-laws of the Parish Society applying for the Charter.

XVII. Apply in writing to the State Society for a Charter as a Component Society of the Louisiana State Medical Society.

COMMITTEES.—Dr. E. Davies has been appointed by the President to represent DeSoto Parish on the Pasteur Institute Committee, and Dr. J. J. Peters, to represent Winn Parish. A number of the members of this committee have written acceptances expressing their desire to heartily co-operate in the work.

The Committee on State Medical Law, with one exception, have accepted their appointments and promised to actively endeavor to get something done. A meeting of the committee is to be held this month. Meanwhile, the State Board of Medical Examiners has applied for an injunction against one illegal practitioner.

The President has appointed the following as delegates to the American Congress on Tuberculosis, to be held in Washington in 1905: Drs. J. B. Elliott, Sr., E. M. Dupaquier, P. E. Archinard, J. D. Bloom, T. S. Dabney, S. E. Chaillé, E. L. McGehee, of New Orleans; J. C. Allen, Baton Rouge; G. W. Gaines, Milliken's Bend; C. J. Grémillion, Alexandria; E. D. Newell, St. Joseph, W. G. Owen, White Castle; J. N. Thomas, Quarantine; D. R. Sartor, Alto; F. M. Thornhill, Arcadia; J. C. Willis, Homer; C. S. Stewart, Amite City; Randell Hunt, Shreveport.

ADDRESSES CHANGED.—Dr. N. K. Vance, from Shreveport to Hynson Springs, Texas, for the summer. Dr. H. H. Barnacastle, from Haughton to Mineral Wells, Texas. Dr. A. R. Tarkington, from Shreveport to Hot Springs, Ark. Dr. R. C. Kemp, from Jackson to Echo, Rapides Parish. Dr. F. W. Dortch, from Leesville to Deridder, Calcasieu Parish. Dr. J. Levy, from New Or-

leans to Derry, Natchitoches Parish. Dr. A. F. Phillips, from Spring Ridge to Robson, Caddo Parish. Dr. W. P. Simmons, from Glencoe, to 2419 St. Charles Avenue, New Orleans. Dr. W. E. VanZant from Mandeville to 2809 Magazine St.

ON VACATION.—Dr. S. L. Williams, of Oak Ridge; Dr. R. W. Seay, New Orleans; Dr. F. E. Girard, Lafayette.

DUES.—A number of notices have been sent members in arrears for dues. Prompt attention to this matter will greatly facilitate the work of the Society. If any mistakes have occurred in getting out these notices, the best way to correct them is to make an immediate protest in writing to the Secretary or Treasurer. Under the New Constitution, the Secretary has turned over to the Treasurer all financial matters, and in checking over the list of members, errors may have crept in.

COUNCIL.—Dr. A. G. Freidrichs, Chairman of the Council, has issued registration blanks, which will be distributed by the Councillors. Dr. Friedrichs hopes that the physicians will co-operate in this matter and return their blanks promptly.

Orleans Parish Medical Society Notes.

[Edited by the Publication Committee, Dr. S. M. D. Clark, Chairman, Drs. Jules Lazard and N. F. Thiberge.]

Our last meeting was unusually well attended. The discussion of the papers presented was vigorous and most instructive. A most timely subject was discussed, that of uncinariasis. The series of papers presented on this disease were of a high order and our members should feel indebted to the essayists for having brought before them in so forcible a way this subject, the importance of which cannot be overestimated. It is, as well said by one of the members, a subject upon which our eyes have been heretofore closed. Every member present enjoyed the discussion and when the meeting adjourned one could not but feel that the evening had been well spent. It must be admitted that this subject has not heretofore

received the proper attention and recognition from the profession in this section. For those members who were not in attendance it will do them well to read the papers presented and the discussion that followed. The mission of this Society would be realized did we have many meetings on the order of the one of August 8.

Several papers have been scheduled for coming meetings which promise to be valuable contributions. The Committee on Scientific Essays is most pleased at the eagerness of members to prepare papers for presentation. This is the spirit that should be kept alive and the Society will be destined to the accomplishment of greater things.

It is hoped to increase the strength and importance of this Society to such a degree that the local profession will feel it compulsory upon themselves in order to receive recognition of their work to prepare papers on their researches and present them to this body for its consideration and discussion.

The applicants for new membership have been eight in number since the last Notes were written. Some names have been unfavorably acted upon. The Judiciary Committee has girded on its armor and is alive to its work. It is making a vigorous investigation of some charges recently brought to its attention for consideration.

The Committee appointed by the Board to revise the By-Laws so as to be in harmony with those of the State Society, have completed their work and presented its report to the Board, from where it will be brought before the Society for its approval.

The Committee appointed for the purpose of looking into the question of new quarters are at work, having visited several sites, but is yet not ready to make any definite recommendation.

The Committee on Hospital Abuse has not made a report. It is about time that we hear something from them on the subject.

The series of the most important medical periodicals for the last six months have been bound and filed away for reference. A valuable addition to the library has been made by binding the *Archives of Pediatrics* from 1886 to date.

Medical News Items.

A DAILY MEDICAL JOURNAL has been conceived and proposes to appear before the public in six pages, 12x15 inches in size, four columns each and the equipment has been provided for 100,000 copies each day. All for one dollar annually, and, as an inducement to subscribers the *New York Medical Critic* is to be added gratis. A daily medical paper was started several years ago and seemed to die a natural death. The present enterprise seems well balanced and we trust it may succeed.

AMERICAN GYNECOLOGY. The July number of this journal appears in a new and quite attractive form and will henceforth be published in Baltimore.

The journal has just completed its first year's existence and has maintained from its first issue such a standard of excellence that one could hardly have expected the further improvements noted in the new volume. It is devoted to gynecology, obstetrics and abdominal surgery, and the seven contributions comprised in this number are of unusual importance and extent.

THE MEDICAL SOCIETY OF VIRGINIA will hold its thirty-fourth annual session in the Y. M. C. A. Hall, at Roanoke, Va., September 15-17, 1903.

THE AMERICAN ELECTRO THERAPEUTIC ASSOCIATION will meet at the Hotel Windsor, Atlantic City, New Jersey, on September 22, 23, 24. The hotel rate will be \$3.50 a day for each person. Round trip tickets from New York City \$4.75. An excellent program has been arranged and the Association invites all practitioners to attend the meeting.

THE SOCIETY OF AMERICAN AUTHORS is agitating general interest in the question of postal rates as applied to manuscripts, at present in the United States having the same charge as ordinary sealed correspondence. Other countries have a mercantile rate, classing manuscripts, not in the nature of correspondence, as commercial matter and making the same postal charges.

NORTH MISSISSIPPI PHYSICIANS FORM AN ASSOCIATION. Marshall County Medical Association was organized July 30 by Dr. Perkins of Batesville, acting for the State Association. Dr. R. H. Peet was elected president, Dr. R. A. Seale secretary and treasurer, Dr. Moore of Waterford assistant secretary and treasurer, Dr. Daniel of Holly Springs, Dr. Hayes of Byhalia and Dr. Vaughan of Pott's Camp, censors. It is the duty of the censors to investigate cases of malpractice, quackery, etc. It is the purpose of the association to improve and build up the practice of medicine in Marshall county. It will meet quarterly.

PASTEUR INSTITUTE PROBABLE. The Charity Hospital board of administrators have had a proposition for a Pasteur Institute submitted to them.

PERSONAL:

Drs. John Tolson and John O. Duhon are summering in Seewanee, Tenn., and are expected home in a few days.

Dr. R. K. Comeaux has located at Youngsville, La.

Dr. A. L. Prejean has located at Great Scott, La.

Dr. John A. Hendrick, a recent graduate of the University of Nashville, has located at Eastpoint.

Dr. Claude Blume graduated from Memphis Medical College the last session and has located near Shreveport.

Dr. T. D. Boaz has recently located in Shreveport.

Dr. and Mrs. Charles Faget and family, after an absence of three years and an extended stay in Pahiti, Australia, are back again and are once more located in the old Faget home in Rampart street.

DIED—Berthold Ernest Hadra, M. D. University of Berlin, Germany, 1866, surgeon in the German army in 1866; a resident of Texas since 1867; president of the Texas State Medical Association in 1901; one of the first regents of the University of Texas; and one of the founders of the medical department of the university at Galveston, died suddenly at his office in Dallas, July 12, from aneurism of the aorta, aged 58.

Publications Received.

Lea Bros. & Co., Philadelphia and New York, 1903.

A Manual of Surgical Treatment, by W. Watson Cheyne, F. R. C. S. and F. F. Burghard, M. D. Vol. VII.

Organic Nervous Diseases, by M. Allen Starr, M. D.

A Text-Book of Surgery, by George Emmerson Brewer, M. D.

The Medical Epitome Series-Medical Jurisprudence, by Edwin Welles Dwight, M. D. *Microscopy and Bacteriology*, by P. E. Archinard, M. D. Series edited by V. C. Peterson, M. D.

A Manual of Obstetrics, by A. F. A. King, M. D.

W. B. Saunders & Co., Philadelphia and New York, 1903.

A Thesaurus of Medical Words and Phrases, by Wilfred M. Barton, M. D.

P. Blakiston's Son & Co., Philadelphia, 1903.

The Latin Grammar of Pharmacy and Medicine, by D. H. Robinson, Ph. D.

Uric Acid as a Factor in the Causation of Disease, by Alexander Haig, M. D.

The Year Book Publishers, Chicago, 1903.

The Practical Medicine Series of Year Books, edited by Gustavus P. Head, M. D., Volume VI. *General Medicine*, edited by Frank Billings, M. D. and J. H. Salisbury, M. D.

The Practical Medicine Series of Year Books, edited by Gustavus P. Head, M. D., Volume VII. *Pediatrics*, edited by Isaac A. Abt, M. D. *Orthopedic Surgery*, edited by John Ridlon, M. D.

William Wood & Co., New York, 1903.

Reference Hand book of the Medical Sciences, Vol. VI, edited by Albert H. Buck M. D.

Miscellaneous.

Arteria Uterina Ovarica, by Bryon Robinson, M. D., 1903.

The Thirteenth Annual Report of the Eye, Ear, Nose and Throat Hospital, 1902.

The Law and the Doctor, Vol. I.

Bulletin College of Physicians and Surgeons, Annual Announcement, 1903-04, Chicago.

Prospectus of St. Joseph's College, 1903.

The Denver and Gross College of Medicine, Twenty-Third Annual Announcement, Session 1903-04.

Sheep. The Principal Breeds, Etc., by W. H. Dalrymple, M. R. C. V. S., 1903.

Albany Medical College—Session 1902-03.

Report of the Bureau of Vital Statistics of the State of New Jersey for 1901.

Index Catalogue of the Library of the Surgeon-General's Office, U. S. A., Vol. VIII., Washington, 1903.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)

FOR JULY, 1903.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	11	5	16
Intermittent Fever (Malarial Cachexia)	8	2	10
Small Pox.....			
Measles.....			
Scarlet Fever.....	1		1
Whooping Cough.....	4		4
Diphtheria and Croup.....	1		1
Influenza.....			
Cholera Nostras.....			
Pyemia and Septicemia.....	2		2
Tuberculosis.....	50	33	83
Cancer.....	15	8	23
Rheumatism and Gout.....	3	1	4
Diabetes.....			
Alcoholism.....	3		3
Encephalitis and Meningitis.....	5		5
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	12	5	17
Paralysis.....	3		3
Convulsions of Infants.....		3	3
Other Diseases of Infancy.....	6	5	11
Tetanus.....	3	4	7
Other Nervous Diseases.....	1		1
Heart Diseases.....	29	22	51
Bronchitis.....	4	1	5
Pneumonia and Broncho Pneumonia.....	14	8	22
Other Respiratory Diseases.....	5	1	6
Ulcer of Stomach.....			
Other Diseases of the Stomach.....	1	2	3
Diarrhea, Dysentery and Enteritis.....	47	22	69
Hernia, Intestinal Obstruction.....	4	2	6
Cirrhosis of Liver.....	7	1	8
Other Diseases of the Liver.....	3	1	4
Simple Peritonitis.....	1	2	3
Appendicitis.....	5		5
Bright's Disease.....	26	19	45
Other Genito-Urinary Diseases.....	5	1	6
Puerperal Diseases.....	3	6	9
Senile Debility.....	14	4	18
Suicide.....	3	1	4
Injuries.....	29	18	47
All Other Causes.....	19	14	33
TOTAL.....	348	191	539

Still-born Children—White, 25; colored, 20; total, 45.

Population of City. (estimated)—White, 227,000; colored, 83,000; total, 310,000.

Death Rate per 1000 per annum for Month—White 18.39; colored, 27.61; total, 20.86.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.02
Mean temperature.....	82.
Total precipitation.....	7.17 inches.
Prevailing direction of wind, southeast.	

New Orleans Medical and Surgical Journal.

VOL. LVI.

OCTOBER, 1903.

No. 4.

Original Article.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

Some Points in the Development of *Dermatobia Hominis*.*

By DR. HENRY B. WARD, Lincoln, Nebraska.

During the early months of 1902 a collecting party from the University of Nebraska spent several weeks in Costa Rica. One member of the party, Mr. M. A. Carriker, Jr., did not return with the rest, but collected in the wild some months after their departure. On his return to Nebraska he gave me three specimens of an interesting parasitic larva with the following history. They were obtained in May, 1902, near Pozo Azul in the province of Perrio, which is located on the extreme western coast of Costa Rica. One larva was removed from a specimen of the toucan which he had shot, and the other two came from the axillary region of his own body. Both of the latter were about the same age, and the

* Read in the Section on Pathology and Physiology of the American Medical Association at the New Orleans Meeting and approved for publication by the executive committee of the section.

larger was at least five weeks old. He had endeavored to kill them about two weeks previous to their removal by the use of nicotin from a pipe stem, a method recommended and generally employed by the natives. The larva is designated in that region as the *torcel*, or screw worm, and is the early stage in the development of an Oestrid or bot fly, which has long been the subject of attention, owing to its habit of parasitizing in the human subject.

The three larvæ were in a perfect state of preservation, and careful examination has revealed some points in the structure and life history which add to our present knowledge. One of the specimens is also just on the point of molting, so that I enjoyed the unusual opportunity of studying old and new skin with their full armature in related position. In addition to these three specimens I had for study two which had been previously obtained in the United States, and to be sure, in the city where we are now meeting. It is very appropriate that this city, in which the only unquestioned specimens that have been removed in this country were reported, should be the point at which this later discussion should be given.

Most of the authors who have contributed to our knowledge of the species have been French, but it is not necessary to enter into a detailed consideration of the various papers, for of the eighty or more which have dealt with this form, most of them are based on observations drawn from a single specimen, too often without due regard to previous work on the part of others. It has seemed important, however, to review critically the cases recorded heretofore in the United States. To those who desire an extended historical review of other work the admirable series of papers by Blanchard may be recommended. This author has covered the ground very thoroughly and critically. He calls our attention to the fact that the first report of this larva was made by De la Condamine, in 1749, since which time many travelers have referred to it more or less fully. Blanchard gave a good description of larvæ from five widely separated localities, and thought he could distinguish four forms, which he designated by the local names of *ver macaque* (Cayenne), *berne* (Brazil), *torcel* (Costa Rica) and *ver moyocuil* (Mexico). Through later studies he was enabled to demonstrate the identity of the last three forms, and to point

out the variations in the armature of the larva, while in his last paper he showed the identity of two adults, *Dermatobia noxialis* (Goudot 1845) and *D. cyaniventris* (Macquart 1843). Meanwhile Magalhaes, in Brazil, had established by breeding experiments that the *berne* was the last larval stage of *D. cyaniventris*, and consequently, according to Blanchard's earlier work, of the entire series of larval forms.

The popular designations applied to this form have varied in every country, and their use by Blanchard to designate a specific stage was due to the chance by which that stage came to be studied first from the given region. The local name applies, however, to the parasite, rather than to any particular stage of development.

The scientific name, also, appears to be somewhat confused. The original description is to be found in the 13th edition of the Linnæan *Systema Natura*. While somewhat scanty, it was revised and supplemented by Say, in 1822, who thought that the species might safely be referred to the newly established genus *Cuterebra* Clark. Somewhat later this genus was divided by Brauer and a new genus, *Dermatobia*, established to include this species under the name of *Dermatobia noxialis* (Goudot 1845). There is, however, not sufficient justification for suppressing the Linnæan specific name and the species should be known as *Dermatobia hominiis* (Say 1822) or if the non-existence of any conflicting form is established, it may carry as authority (Gmelin 1788).

The larvæ represent two distinct stages, features of which were very accurately determined. Here they may be stated in general outline. The smaller form is of the stage designated by Blanchard as *ver macaque*. It measures 9.9 mm in length by 1.8 mm in breadth at the fifth segment. It is evidently in the state of nearly maximum extension. Each of the anterior somites, I to IV inclusive, bears a band of small hooks which is separated from the next succeeding somite by a smooth hookless area. The hooks are smallest on the first somite, and increase so as to become largest on the fourth. The band also is narrowest on the first somite and widest on the third and fourth, where it exceeds in width the clear area mentioned. On the fourth somite a half circle of large hooks interrupted on the ventral surface introduces an alternate series of complete and incomplete circles, of such hooks of which there are three each, the fifth and sixth somites each carry an an-

terior complete, and a posterior incomplete circle, while the seventh somite has the former but lacks the latter.

From this anterior region which bears the rows of hooks one may distinguish readily a smooth, non-segmented portion, somewhat smaller in calibre, and destitute of armature, except on the terminal region. This portion constitutes nearly half the entire length of the body. On these terminal somites the hooks are much lighter in color and less distinct, owing to their being less heavily chitinized.

When fully extended the posterior region has an exceedingly striking form, the tenth somite is directly continuous with the smooth, undivided region, and has the form of a collar, which surrounds the retractile portion of the following somite. This, which is the eleventh, has a proximal portion of moderate calibre and smooth walls and a distal inflated region, covered with spines, quite closely set. The relation of parts as well as the form suggests the glans penis. On the extreme face the anal orifice and two respiratory stigmata may be observed.

This larva shows also a pair of large chitinous oral hooks the points of which project from the mouth opening. They are strongly recurved in a ventral and posterior direction, and are attached internally to an anvil shaped basal piece. The armature of the somites is made up, so far as the large hooks are concerned as follows:

SOMITE.	POSITION OF ROW.	CHARACTER.	NO. HOOKS.
IV.	Posterior	Incomplete	18+
V.	Anterior	Complete	29
	Posterior	Incomplete	15
VI.	Anterior	Complete	25
	Posterior	Incomplete	13
VII.	Anterior	Complete	24

The largest larva represents the second stage of development. It measures 12.7 *mm* in length, by 6.2 *mm* in breadth, and is much contracted, so that the tip of the last somite barely projects beyond the collar of the previous one, within which it is otherwise concealed. In consequence of this the somite markings are very distinct, but the armature is difficult to determine. The slender

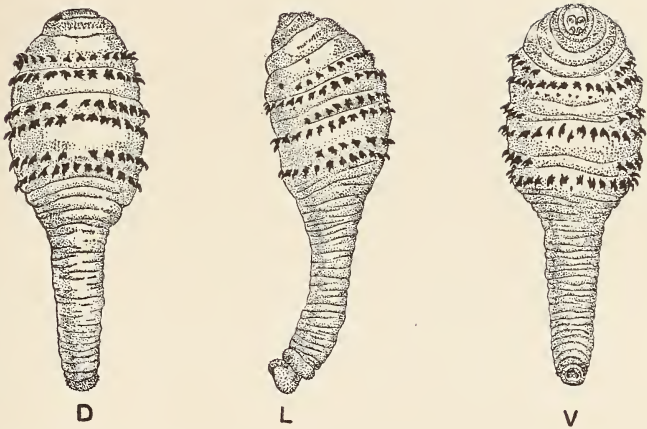


Fig. 1.—First Larval Stage in Dorsal (*D*), Lateral (*L*), and Ventral (*V*) Aspect. (Original).

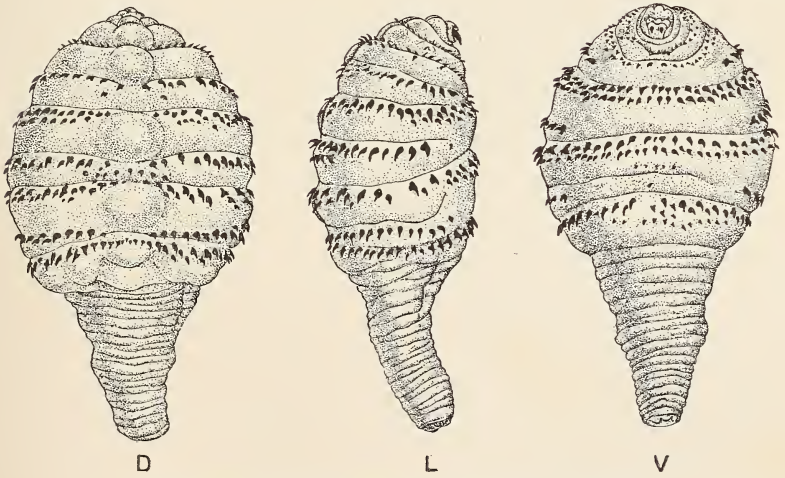


Fig. 2.—Second Larval Stage in Three Aspects. (Original).

posterior portion covers less than one-third the entire length, and shows its contracted condition in the irregular deeply marked, transverse folds or constructions, which are conspicuous throughout its entire extent. On the dorsal surface of this larva one finds in the median line a row of peculiar structures which are modifications of the general covering of the body. They have the form of ellipses, transverse to the main axis, and rise as low oval bosses more transparent in character than the rest of the external surface. The rows of hooks turn slightly forward or back, as the case may be, to pass around these oval areas, on which neither any hook nor any irregularity of the surface may be noted. These ovals form a regular series in the mid-dorsal line, from the II to the VII somites inclusive. While in this specimen exceedingly delicate, they become thickened with the progress of growth, until they form heavy chitinous bosses at the completion of this stage of development.

The rudimentary antennary protuberances, which were present in the first stage also, are somewhat more distinct here, and bear each two simple eye spots. The oral hooks are much longer, less sharply curved, and noticeably heavier. The first somite is entirely without hooks on the external surface, while on the II, III and IV these denticles are very much larger, as well as less numerous than in the earlier stage. They are arranged in an irregular single or double row near the anterior margin of the somite. The complete and incomplete circles of large hooks which occur on somites IV to VII of the earlier stage are present here also, but sufficiently altered in appearance that they are not immediately recognizable. The individual hooks, are, to be sure, actually larger than corresponding ones of the preceding stage, yet the larger hooks have lost their conspicuous character since the smaller denticles have increased in size far more strikingly. The rows are also less symmetrically placed, and the hooks less uniform in size, while just posterior to each of these rows a parallel supplemental circle is noticeable. This is composed of slightly smaller hooks, and is not so complete. The row on the dorsal surface which lies just behind the incomplete circle of large hooks on the IV, V, and VI somites, is here composed of hooks which are pointed not backward, but forward. One can understand the meaning of these structures in considering the migration of the larva from its seat in the

subdermal tissue, a phenomenon which occurs at the end of this stage of development.

The other larva from the human host is slightly smaller than that just described, and is on the point of molting. On close examination one may see the new skin with its armature already perfected lying just beneath the old, so that a careful study could be made of the relation of corresponding regions. The armature of the external skin corresponds perfectly to that of the first larva and of the new skin to that of the second larva.

Thus it has been possible to determine with certainty the relation of these two successive stages in the life history.

The earliest reference in American writings to the species under consideration is made by Say, in 1822. He received a specimen extracted from the leg of a Dr. Brick, during a journey in South America. While his description of this larva is faulty in that he regarded the anterior end as posterior, and *vice versa*, it is nevertheless sufficiently precise to permit one to assert with some confidence that his specimen was identical with the smallest larva described in this paper. Say quotes from a letter by Dr. Brick an interesting clinical history of the case, particularly important by virtue of the observer's profession. Dr. Brick was stung by some insect while bathing, and the larva was extracted after about six weeks. It gave rise to excruciating pains at intervals, owing as he inferred, even before the determination of the cause, to "something alive beneath the skin." It was at first "a considerable tumefaction over the tibia, which had the appearance of an ordinary boil (phlegmon), in the center there was a small black speck." The tumor began to discharge at about four weeks, and was so serious that he was "scarcely able to walk." Scarifying the tumor yielded no results, and finally poulticing with cigar ashes and rum for five days resulted in the extraction of the larva dead. Dr. Brick reported that it had traveled on the periosteum along the tibia for at least two inches. Although later authors have held very generally that the larva always inhabits a fixed spot in the subcutaneous tissue, I do not find that anyone has made reference to this record of its migration made by a most competent observer.

The second observation recorded in the United States is that of Penniston, in 1844. The larva was removed from a sailor in the Charity Hospital at New Orleans, who had acquired it in a

trip to the provinces of Vera Cruz and Tabasco, Mexico. From the figure, as well as from the careful description of the larva, it may be recognized as in the later stage of development; it was not old enough to undergo metamorphosis, when removed from the arm of the host, even though it remained alive four days. The paper by Penniston was translated into French and appended to a short note by Coquerel and Salle on some other specimens from Mexico. Verrill, in his report on the external parasites of man and domestic animals, refers to this species and cites a similar case in the United States, which afflicted a young woman of Meridian, Miss. From the description given by Verrill it seems altogether probable that this is not the species under consideration.

In 1877, Matas reported a case of an Englishman from Spanish Honduras upon whom he had operated in the Charity Hospital at New Orleans for the removal of three larvæ from the gluteal region. The sinus in which the larvæ lay was oblique, and in subdermal tissue. The patient was stung by a fly on June 11, and the larvæ removed on June 27. Through the kindness of Dr. L. O. Howard, of Washington, D. C., I was enabled to examine two of these specimens which are in the United States National Museum, and am convinced of their complete identity with the larva described by Blanchard under the name of *ver macaque*, and with the earlier stage described here.

Matas states that "similar instances of larval deposits in the skin have not been rare in the hospital, at least since the Panama canal, and other enterprises have increased the traffic between this port [New Orleans] and the Central American Republics."

In a brief note James refers to an unnamed article or address by Riley which records the occurrence of "a small larva of some species of bot fly," in the skin of the neck of a woman stung by some insect in Washington, D. C. In view of the familiarity of Riley with the ordinary bot fly larva, and in view of the absence of comment on his part, we can not regard the case as one which concerns *Dermatobia* with its peculiar larval form.

Blanchard has referred to several other cases from the United States. He enumerates among others the case of Howard, who received a specimen taken from the arm of a tailor that had been in Brazil, Baron Osten-Sacken received from Dr. Jos. L. Le Comte of Philadelphia another larval specimen which came from Hon-

duras. This he sent in turn to the German specialist, Fr. Brauer, by whom it is described at length in his monograph on the Oestridæ.

Some part of the life history of this species may now be considered as reasonably well established. How the eggs or embryos are deposited, how the young gain their place beneath the skin, whether they change in form and how often, are details entirely unknown. Within about two weeks after the infection, however, the larva has become in the human host of the stage designated as *ver macaque*. This date is positive in the case of Matas (June 11-June 27) and approximate in other instances. At the end of about five weeks the larva is in the process of molting or has just passed that epoch, as is shown by the case of the two larvæ from the human subject which are discussed in this paper. While external factors, no doubt, modify the speed of development, there is no instance recorded of the *ver macaque* stage older than this limit, and none of the *torcel* stage which are younger.

The fully matured specimens of the *torcel* stage are more than two months old, and possibly another molt intervenes between the older specimen I have described and the form from the same county illustrated by Grube and interpreted as the mature form of the *torcel* stage. Numerous minor details, which can not be profitably discussed here favor this hypothesis. According to Coquerel and Salle the larva remains ordinarily three months in the flesh, and at the end of that time drops to the ground, and transforms. In the only case of this transformation which has been recorded, it required about six weeks.

No doubt the life cycle is periodic. It is suggestive that the cases of human parasitism bear dates, so far as I have been able to ascertain, which fall in the months April-July inclusive, so that we are impelled to regard the life cycle as clearly periodic.

The most varied animals are at times the host of this species. It is common in cattle, pig, and dog, less frequent in man and rarely found in the mule. It also occurs in the agouti, jaguar, various monkeys, and a number of birds, including the toucan, and thrush, and domesticated turkey.

In man it has been reported from various regions of the body. One may cite the head, arm, back, abdomen, scrotum, buttocks, thigh, axilla, so that the adult appears consequently to depend upon

opportunity rather than choice of definite location in oviposition. A veritable plague to cattle in those regions where it exists, its more occasional presence in the human host is on the testimony of many sufferers accompanied by excruciating pains, especially at times when the larva is moving. The early morning and evening hours appear to be those in which the pain is most severely felt. When one considers the extensive armature of the parasite it is difficult to see how its presence in the human skin can be unaccompanied by severe pain. Most authors believe it is doubtful if it reaches full development in man, and in no case on record has the adult been developed from any larva taken from the human flesh. Yet Magalhaes obtained four which were old, one of them indeed immobile, as if it had already begun to pupate.

The species enjoys a wide range on this continent. It is very common in Brazil as far south as 18° south latitude and east of the mountains. Cases are reported from French and British Guiana, Venezuela, the island of Trinidad, Columbia, and even Peru, so that its discovery in intervening territory with suitable climatic conditions, is evidently only a matter of a short time.

To the northward previous records of the species are at hand from Costa Rica, Honduras, Guatemala, and from Mexican states even as far north as 25° north latitude. Its appearance on the eastern coast has long been known, and the somewhat doubtful reports concerning its presence on the western have received full ratification from the work of Carriker reported in this paper.

While the habitat approaches closely to the limits of the United States, it does not appear that any evidence has been offered to demonstrate its presence, even occasionally, within our borders. Blanchard emphasizes his inability to secure any specimens, and an extensive correspondence on my own part with societies and individuals in Texas and Louisiana has been equally void of result. All of the local contributions to the subject have dealt with specimens of an undoubted foreign origin.

Clinical Report.

Foreign Bodies in the Ear.

By B. A. COLOMB, M. D., Union, La.

The following method is very useful for extracting foreign bodies from the ear canal. On one occasion a white bean had been introduced into the canal of a child and the efforts for removal had pushed the bean against the drum transversely. It was swollen and the canal abraded and very sensitive. The child had to be chloroformed, and with a good lamp and a head-mirror (the operation was done at night) the bean was extracted in a few seconds. I have recently extracted an ordinary cowpea from the canal of a boy, by the same method.

The instrument for extraction is made by heating the point of a fine sewing needle and bending it at right angle or a little more, so as to make a short hook. The large end of the needle is then inserted into a handle—an ordinary match will do. The little hook is passed flatwise into any space between the foreign body and the canal, then turned against the foreign body, which can be drawn out, without danger of injury to the delicate structures. It is necessary that the needle have a fine point, and that the hook be short. This instrument is specially useful in the case of beans, peas, grains of corn, etc., which are the bodies most usually introduced into the ear, and when swollen and soft the hook takes hold more easily.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. E. J. GRANER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING OF AUGUST 8, 1903.

DR. GRANER, President, in the chair.

DR. T. S. DABNEY read a paper on

Quinin Idiosyncrasy and Toxicity. With Report of Cases.

The student of medicine learns in a vague way that quinin like most other drugs, produces in certain individuals untoward results, usually some form of skin lesion. Most published reports of quinin idiosyncrasy fail to mention the specific salt giving rise to the lesion. So far as my reading goes no very alarming toxic symptoms seem to have occurred in the published cases. I have had two cases in my private practice where symptoms of the most alarming character were produced by the ingestion of quinin.

Case 1. About ten years ago, I was called to see a lady, Mrs. H., aged 28, native American, married and the mother of two children. This patient was suffering from a severe attack of estivo-autumnal malarial fever. As I was preparing to write a prescription she remarked to me that she could not take quinin, that her old family physician in Illinois had nearly killed her when a child and that he had impressed it on her mind to inform any physician she might employ elsewhere of this idiosyncrasy on her part. She furthermore told me that while living in St. Louis, Dr. Mudd had prescribed the sulphate of quinin for her in five-grain doses for an attack of malarial fever in spite of her statement. She took one dose of five grains and such alarming symptoms of collapse set in that it was necessary for the physician to remain by her all night administering electricity, strychnin, etc., and other cardiac and respiratory stimulants. In spite of this double experience my

patient expressed a willingness to take quinin, provided I made all arrangements for remaining at her side until all danger was passed. I sent a 24-cell galvanic battery to her home, ordered brandy, an ammonia mixture and saw that my hypodermic case was well-stocked with strychnin, atropin and nitroglycerin. At eight p. m. I went to her room and in the presence of her husband administered a five-grain capsule of the sulphate of quinin and sat down patiently with my hand on her pulse and my eyes closely watching her countenance. At 8:30 her pulse became a little irregular and her face commenced blanching and she commenced to complain of slight dyspnea. These symptoms rapidly grew worse, the pulse became imperceptible at the wrist and the breathing became very slow and labored. The abdomen became shrunken and the eyes looked lustreless and did not respond to light. Hypodermics of brandy, strychnin and nitroglycerin were promptly administered. Electricity was given intermittingly and artificial respiration was practiced from time to time. The patient remained profoundly unconscious for fully eight hours and I did not feel it was safe to leave her side until four hours thereafter. No rash occurred on any part of this patient's body. The entire brunt of the drug seems to have fallen on the pneumogastric nerve or else on the sympathetic nervous system. With such an experience most men would be deterred from administering any of the cinchona salts to Mrs. H., yet I could not quite satisfy myself that it was the quinin, but rather the particular alkaloid administered, the sulphate.

Two years after this unhappy experience I had the opportunity of testing my theory. Mrs. H. returned in the fall from her summer vacation spent in Missouri and in a short time developed a sharp attack of intermittent malarial fever. I obtained her consent and that of her husband to administer to her the hydrochlorate of quinin in five-grain doses every three hours. The same preparations as before, were made, but no unhappy sequelæ resulted. The only effect noticed was a heightened arterial tension. Since that date Mrs. H. has on a number of occasions taken the hydrochlorate with the happiest results.

Case II. Several years ago, a white woman, aged 49, suffering with malarial intermittent fever, was placed under my care. I was

informed that she could not take quinin, that it always gave her the hives and made her very ill besides. Remembering Mrs. H.'s case and bearing in mind that quinin means almost invariably sulphate of quinia, I ordered forty grains of hydrochlorate of quinia to be made into eight capsules, one to be given every three hours. I informed the family of what I had ordered and promised to call in an hour or two to watch the effect. The patient suffered no inconvenience, save a severe tinnitus aurium.

Case III. In May, 1903, I was called to see Mrs. P., white, aged 29, married and the mother of one child, who was suffering from an attack of enteric fever of moderate severity. During the second week an intercurrent attack of malarial intermittent fever set in, with chilly sensations, pronounced headache and sharp rise of temperature on alternate days at 3 P. M. Before this manifestation of malaria I had been informed by this lady herself, as well as by her husband, that she could not take quinin, that it gave her nettle rash and made her sick. I explained the necessity of eliminating the malarial element as speedily as possible and insisted upon using quinia in some form. The lady being intelligent promptly agreed to take whatever was ordered. The following prescription was ordered:

R. Quiniae hydrochlorate ʒss.

Acetanilid, ʒi.

Make capsules No. VIII.

Sig. Take 1 capsule at 7 A. M. and one every three hours thereafter till 4 are taken daily.

At 7 A. M. one capsule was given the patient by her husband. At 7.30 I was rung up by telephone and informed that an uncontrollable urticaria had set in, having commenced at 7:15 in the mouth and throat and had gradually extended all over the surface of the body, being especially severe on the scalp and over the soles of the feet and palms of the hands. I ordered a lotion of carbolic acid and menthol in a mixture of water and alcohol to allay the itching. At 8 A. M. I was informed through the telephone that the patient's condition was getting serious. At 9 A. M., two hours after the ingestion of three and three-fourths grains of the hydrochlorate of quinin, I found my patient with flushed face, eyes deeply injected, covered from head to foot with deep scarlet rash.

Surface of body very hot to touch. Patient was suffering greatly from pain in posterior part of head, stomach, bowels and uterus. Her menses had returned, after an absence of five days, with marked uterine cramps. Patient felt intensely nervous, suffering from marked dyspnea and complained of decided pains around the throat. Temperature under the tongue had fallen to 98°. Severe attacks of vertigo, rendering the patient unconscious, supervened from time to time for several hours. The pulse was full and bounding and struck the fingers with decided force. It beat 100 to the minute. Thinking possibly the pharmacist might have substituted the sulphate for the hydrochlorate, I secured from a reliable pharmacist the hydrochlorate of quinia combined with Dover's powders for a second trial. Next morning administered one capsule containing five grains of the hydrochlorate and two and a half grains of Dover's powders to my patient and obtained the identical result as on the day previous. Not wishing to jeopardize the life of my patient, already suffering from typhoid fever by trying other quinia salts, I substituted arsenic in rather large doses, with the happy result of seeing the intermittent fever gradually yield and disappear.

This last patient's idiosyncrasy extends to the hydrochlorate as well as to the sulphate of quinin.

Should it ever fall to my lot to treat this patient again for malaria, I shall try the valerianate or the hydrobromate.

A great many different varieties of eruptions have followed the exhibition of quinia and its salts. According to H. C. Wood, Jr., they may be divided into the scarlatina-form, the urticarial, the bullous, the purpuric, the rubeloid and the erythematous and certain nondescript varieties. It is also well known that quinin at times produces sharp attacks of coryza. Schamberg reports a case where a balano-urethritis was caused by this drug. The size of the dose seems to have no bearing on the production of the untoward results.

Neither age nor sex grant immunity, for we find this idiosyncrasy shown in infants and in the aged. I have a little patient 18 months old that possesses a marked idiosyncrasy to quinia, this peculiarity having been discovered upon the administration of a teaspoonful of febrilin by the mouth for a simple catarrhal fever.

Such alarming symptoms set in as to necessitate my being called in.

Many mistakes in diagnosis have been made by physicians who have not had their attention called to quinin idiosyncrasy. This idiosyncrasy runs in families. Case No. III, reported by me, has a brother similarly affected and one of this brother's children has the same idiosyncrasy.

It is a very serious thing at times to be unable to take quinin. I therefore, urge my colleagues to try the various salts of quinia before abandoning the drug altogether. There are times when nothing can save the patient's life except quinin and on this account I deem this subject of sufficient importance to bring before you and ask your aid in solving the problem of quinin idiosyncrasy.

The well-known oxytoxic effects of quinia have caused many conservative physicians to discard it altogether in pregnant women suffering from malaria.

That miscarriages are common in women suffering from malaria can not be denied, nor can it be denied that, in rare instances, the quinia itself acts as an abortifacient, but only in those cases possessing the idiosyncrasy, as in Case III reported in this paper. In a practice extending over twenty years I have never in a single instance been deterred from the exhibition of quinia by reason of pregnancy, and furthermore, I have never seen a case of miscarriage due to the ingestion of quinia. It behooves men of experience in such matters to speak out boldly and unequivocally, so that he who runs may read. *Per contra* I have seen miscarriages occur a number of times in cases where quinia was not given for fear of its results. It is a law that the uterus tends to expel its contents in all fevers of sharp exacerbations as well as in those of long duration; therefore, whatever speedily eliminates the fever or its toxins, is physiologically indicated in the pregnant state as well as in any other.

DISCUSSION.

DR. J. F. OECHSNER told of a case that he had treated in which it was doubtful whether the ill effects of quinin were due to an idiosyncrasy or a deeply-rooted impression by the patient that quinin was certain to produce a chain of unpleasant symptoms.

This patient had what was believed to be a malarial toxemia and quinin was ordered against the patient's wishes, who stated that this drug always produced most unpleasant effects. The quinin was given in capsule form at 2 o'clock in the afternoon. Ten minutes after its administration the patient vomited and most probably expelled the capsule at the time. From this capsule a violent attack of nausea and vomiting followed, which the patient attributed to quinin. Evidently no quinin had been absorbed. Euquinin was tried, but it, too, was followed by attacks of nausea and vomiting. This was ordered to be continued in powder form, but the patient was so impressed with his inability to take quinin, that he refused absolutely to take it and the case was discontinued. This case was mentioned because it was his opinion that the nausea manifested was due more, if not entirely, to the mental impression that the patient entertained of his inability to take quinin. He thought that this was clearly shown in the instance where the quinin was vomited ten minutes after its administration. It was asked if any other member of the Society had used euquinin in this class of cases and with what results. Aside from the very probable mental influence in this particular instance, he thought from the history that there was some psychical idiosyncrasy, and upon that hypothesis was anxious to determine if euquinin had a similar effect. In fact, the principal object in citing this case was to elicit a discussion as to the value of euquinin as a substitute for the sulphate of quinin in cases possessing a marked idiosyncrasy toward the latter drug.

DR. BARNETT stated that he had used euquinin with marked antiperiodic effect in malaria, but in cases that quinin excited untoward skin symptoms, he found euquinin to do likewise. He had seen quinin produce a delirium almost maniacal, but had never witnessed such a complete prostration from quinin as cited by Dr. Dabney.

DR. SEXTON spoke of the great importance of quinin as a drug in this malarial section and he hoped that the ill effects that had been mentioned would not deter any of the younger members of the Society from its liberal employment. He had noticed from the paper that all the unpleasant symptoms had been attributed to the quinin and none to the disease. This is often the case with patients

when the simplest of drugs have been prescribed. There were certain cases in which he was very guarded in employing the drug, one of them being from elderly people who were suffering from deafness or any irritation of the bladder, as from enlarged prostate. He had seen cases in which quinin had produced a cystitis and urethritis. In cases that were partially deaf and suffered from tinnitus aurium, he had found the use of hydrobromic acid along with quinin, largely reduced the ear symptoms. He had noted that Dr. Koch claimed that quinin would produce hematuria and by Dr. Martin (of Mississippi), in his paper on malarial hematuria, quinin was rigorously condemned as congesting the kidney or aggravating the disease. He found that by combining quinin with arsenic and strychnin, in cases that did not tolerate quinin well, gave excellent results. He did not approve the large doses of quinin. Quinin when given in 30-grain doses was, in his opinion, excessive, for he did not believe that all of the drug was absorbed when given in such large doses, and the effect upon the ears, eyes and nerves were damaging in such large doses. Even though quinin had its unpleasant symptoms, he hoped that no one would be deterred from using it in this section whenever indicated. Of all drugs it was the one often-most indicated in malarial districts.

DR. MCGUIRE told of a recent experience he had in the use of quinin in a case of pregnancy. Though the condition may have been a coincidence still it caused him a great deal of anxiety. The case was one in which labor had been progressing slowly for six or eight hours when he administered ten grains of the bisulphate, relying upon its quick solubility for immediate action as an oxytotic. About an hour after its administration he noticed a slight scarlatinal rash appear on the patient's body. At the end of a severe pain the case developed into an eclamptic state. Delivery was accomplished, but the patient was unconscious for 24 hours, followed by deep stupor for another day, then a gradual clearing up of the mental state. Albumin appeared in the urine in a goodly quantity and gradually disappeared. He never would have thought of connecting the quinin as a cause for the eclampsia had he not noticed the scarlatinal rash. He was yet in doubt whether the quinin played any part in the production of these untoward symp-

toms, but in the future he would very guardedly use quinin in such cases.

DR. MAGRUDER had used quinin in the pregnant state in large doses, always combining small doses of opium with it, and he never had any bad results. In a recent case when he first saw the patient, she was having strong uterine contraction and suffering intensely from pain and high fever. He administered morphia hypodermically, which relieved the pain, then began the liberal use of quinin with opium, which eradicated the fever and did not produce any uterine contraction. The patient was delivered at a later date.

DR. DABNEY, in closing the discussion, said that nothing was farther from his mind than to dissuade any member of the Society from the use of this most valuable drug, but in his paper he had simply meant to give his personal experience in certain cases. He thought that every man of long practice had also had a similar experience.

DR. ISAAC IVAN LEMANN read a paper on

Importance of Uncinariasis to the Southern Practitioner.

To those who have seen coming from our surrounding country numbers of patients in a condition precisely similar to that of the boy to be presented to you to-night by Dr. Guthrie, and who have endeavored without avail to remedy the extreme anemia present, the discovery that this apparent paludism is in reality due to an intestinal parasite is nothing short of a revelation. The importance of this fact to the practitioner of the Southern States, especially the practitioner of the country districts, can not be overestimated. Competent men who have undertaken investigation have not hesitated to declare that "time will show that by far the greater number of cases of anemia in Georgia, Alabama, and Florida are due not to malaria but to ankylostoma and this is the most common of all the serious diseases in this region." (1) Up to last year (1902) only some 16 cases had been reported in this country, one of which was reported to this Society in July, 1899, by Dr. C. H. Tebault, Jr. (2) In 1901 there was, as Stiles remarks, a sudden increase in American observations. (3) The

identification by Stiles, in 1902, of a new species of hookworm endemic in the United States, and rather cursory but nevertheless important investigations by this observer, into the prevalence of profound anemias in the Southern States, has aroused the greatest interest and stimulated investigations in this region. In the past year we find reported by such observers as Bondurant and Henderson of Mobile, and Harris and Smith of Atlanta, numerous cases of the disease in their outlying districts. One of the most interesting of the symposia at the last meeting of the American Medical Association was that upon this subject and it was the universal verdict of those participating in the discussion that hookworm disease would in time be proven to be one of the most important that the physician of the rural districts of the South is called upon to treat.

A few words as regards the distribution of this disease as caused by the congeners, *ankylostomum duodenale* and the new *Uncinaria Americana*, may not be amiss. It exists interruptedly over about three-fifths of the habitable globe between 50° north latitude and 30° south (5). The ankylostomum is found in 90 per cent. of all necropsies at the Kasr-el-Aini, Hospital, in Cairo (5). In Demerara its presence was noted in 52 per cent. of necropsies and, in Assam, Dobson found the ova in the dejecta of 454 out of 547 immigrants from India (5). Dr. Thornhill, Ceylon, considers ankylostomum duodenale the greatest enemy of the human race in the tropics (5). That the disease is of importance elsewhere is shown in the discussion at the last International Congress of Coal Miners, held at Brussels (6). It was there stated that in the coal fields of Ruhr, Germany, more than 25,000 miners were affected. In four mines, 90 per cent. of the miners were affected. The disease seemed to be gaining ground in Germany since 1896 and the average vitality of the miners had been reduced from 45 to 40 years of age. In Belgium in certain mines, the ova were present in the feces of from 70 per cent. to 80 per cent. of the miners. Ankylostomiasis has been reported from the mines in Cornwall, England (7). In Servia and Bulgaria it is said to be endemic (8). Undoubtedly it exists in the Philippines, as we have on record a number of cases of American soldiers who must have been infected during their stay in the archipelago (14, 15,

16). In the Western Hemisphere hookworm disease has been found in Cuba (9), Panama (4), Alabama (10), Georgia (11, 12, 13), Porto Rico, Missouri, Louisiana, Mississippi, Florida, South Carolina, North Carolina, Virginia, New York, Pennsylvania (3),—A very wide distribution indeed. The worm found in the Eastern Continent is the *ankylostomum duodenale*, while that found in the Western is probably always the new *Uncinaria Americana*.

One cannot fail to be impressed by the vast field opened up for the treatment of dirt-eating and the marked anemias so frequently diagnosed as chronic malarial cachexiæ, heart disease, etc., by the observation of Dr. Ch. Wardell Stiles, Chief of the Division of Zoology, Hygienic Laboratory, United States Public Health and Marine Hospital Service, who, though not a physician, has correlated the pathological state with the presence of this parasite. The publication of his report this spring by indicating the widespread nature of the infection will prove to be epoch-making. As an index of the kind of cases we shall find to be due to this parasite, I may quote the experience of Agramonte (17), who undertook a careful examination of all cases of persistent anemia of obscure origin admitted to Hospital 1, Havana, and encountered numerous cases of uncinariasis the existence of which had not been suspected. Of 16 cases (5 women, 11 men) the diagnosis before the discovery of the ova in the feces had been: Paludic hydrexia, 3 cases; chronic paludism, 2 cases; paludic cachexia, 7 cases; splenic anemia, 3 cases; intestinal tuberculosis, 1 case.

The symptoms of the disease are well described by Dr. O. Baker in the *British Medical Journal*, March 28, 1903, Epigastric discomfort or pain is one of the earliest. This is followed by a capricious appetite, e. g., dirt-eating; in many cases bulimia exists. Soon anemia appears. In the more advanced cases there is a chalky, white pallor of the nails, the mucous membranes are blanched, hemic murmurs are heard in the precordial region and the pulse is empty. There is cardiac distress and mental and bodily apathy. Albuminuria occurs, but not invariably. Edema begins in the legs and becomes general. In many cases there is marked ascites causing the well known "pot-belly." Blood analyses show great reduction of hemoglobin and of the number

of red blood corpuscles. In some cases (advanced) the blood conditions would suggest pernicious anemia. As is the case in most infections with animal parasites, there exists an eosinophilia, i. e., an increase in the relative number of eosinophilic leucocytes. This train of symptoms is accounted for, as we shall see, by the continual withdrawal of blood from the host by the innumerable parasites fastened to the intestinal wall. In many cases there is a low grade of fever (*circa* 100° F.) and this together with certain appearances at autopsy has led to the theory that the parasite secretes a hemolytic ferment or toxin (5). This, however, is a disputed point. Stiles describes a peculiar "dull, blank, almost stupid, fish-like, or cadaveric stare" to which he attaches considerable diagnostic value.

At autopsy there is found anemia of all the organs, fatty degeneration of heart, liver and kidneys (5). Myriads of worms are found in the intestines—not, however, in the duodenum, but usually in the jejunum. Sandwith (1894, pp. 17 to 20) asks "Can it be that when the duodenum becomes thickened and riddled, as it were, with ravages of former generations, the *ankylostomum* fastens by preference on the jejunum?" The mucous membrane of the small intestine shows the numerous "bites" and in places is more or less necrosed (5). Ernst, of Cologne, found 2,768 worms at one autopsy.

Such the disease and such the results. Its diagnosis is exceedingly simple, being dependent solely upon finding the ova in the feces. The adult worms are never expelled except after the administration of a vermifuge. The examination is simple: Take a small amount of feces about the size of the head of a large pin; spread this out in a drop of water on an ordinary microscopical slide and cover with a cover glass. Examine with two-thirds or a 1-6 objective. The egg of *Uncinaria Americana* is oval, with a thin hyalin shell. The protoplasm is non-segmented or more or less segmented according to the stage of development.

The eggs are about 20 times the size of red blood corpuscles. Stiles suggests also placing an ounce of the feces on a piece of blotting paper; shortly thereafter a reddish brown stain appears, indicating the presence of blood. The adult worms which will also be shown you to-night, are about half an inch in length.

These *Uncinaria Americana* differ from the old world worm (*Ankylostomum Duodenale*) chiefly by the replacement of the two ventral recurved, hook-like teeth at the buccal end, by a pair of semilunar plates. The other chief difference between the two species is that the egg of the *Uncinaria Americana* is larger than the other. The sexes are differentiated, the vulva in the female being in the anterior half of the body near the middle. The life history of the species is the same. The ova are discharged in the feces as they are shown you to-night, either segmented or unsegmented; no further development takes place in the intestines. In from one or two days after their discharge the eggs undergoing further segmentation finally yield larvæ, which are still microscopic (three *m.m.* long). Unfortunately we are not able to show you any. The larva casts its skin on the second and again on the fifth day and is then ready to infect men again. For this extra-corporeal existence oxygen is necessary (3). Freezing kills the embryos. Too much water retards their development and drying kills them (3).

The mode of infection is chiefly through the mouth, due of course to unclean habits and to dirt-eating. Parenthetically it may be remarked that we have here established a vicious circle, the infection being due to dirt-eating and is in turn causing a capricious and unnatural appetite. Loose, of Cairo, has advanced the theory that the larvæ penetrate the skin through the hair follicles and entering the body thus, finally reach their preferred habitat, the intestine. His experiment (5) of placing embryos on the leg of a boy about to be amputated for disease, one hour before its amputation, is of extreme interest. After the removal of the limb he made sections of the skin and found many hair follicles packed with embryos. Stiles (3) also quotes Bentley's theory that ground itch (*panighao*) is due to the *ankylostomum duodenale*. But all this is rather of academic interest, the prophylaxis being the same whether the infection be carried through the skin or by the hands through the mouth. A recent issue of the *Journal of the American Association* (18) quoting from the *Allgemeine Medicinische Ct. Zeitung* says that at Bochum, Germany, a new source of infection has been found. The parasites have been found in the eggs of hens which had access to soil fertilized by the

dejecta of miners. "All the members of the scavenger's family, who were in the habit of eating eggs raw, were found to have the disease. The hens showed no symptoms of it, but investigation of the eggs revealed the larvæ in profusion."

We come now to the treatment. Of course prophylaxis is of prime importance, in infected districts proper latrines must be constructed and their use be made obligatory. Bearing in mind the fact that oxygen is essential to the development of the larvæ, such disposition of the dejecta should be made as to prevent the access of air. Above all, the people must be taught the necessity of personal hygiene, particularly the need of carefully cleansing the hands just prior to partaking of food. Patients removed from the source of infection tend to get well spontaneously, as the life of the parasite is limited, five years being the utmost time. Since all stages of development can not take place in the intestine of man it follows that the patient, when removed from the locus of infection, will, unless he reinfects himself from his own dejecta or his anemia be so far advanced as to preclude the possibility of his recovery, proceed to cure spontaneously.

Therapeutic measures are directed, first, to the removal of the cause, and secondly, to repairing the ravages of the parasite. Thymol in doses from ten to sixty grains, preceded by calomel and followed by another purgative (e. g. castor oil), is the preferred anthelmintic, though *ol. res. filis mas* is used by some. Some caution is to be used in the administration of thymol as the drug in large doses is toxic, acting particularly as a cardiac depressant. To patients much depressed by a profound degree of anemia and to patients advanced in years, it is best to give the 10 gr. dose, even at the probable risk of all parasites. The approved method, however, is to give two doses of 30 grains each, with an interval of two hours. It is well to precede this drastic measure by at least a brief course of stimulation with *digitalis* or *strychnin*. Alcohol should be avoided as it increases the solubility of the thymol, and hence, increases its toxicity. The patient being rid of the parasites, our attention must be directed to remedying his anemia by means of ferruginous tonics, etc.

The prognosis is good, except in such cases where a hydremic

condition of the blood and depression of the patient exists, the final stages of the disease.

The lesson of the study of this disease may be summed up in the words of Baker (5); "No clinical examination of a patient living in a tropical (or other) country where parasiticism is such an important etiological factor in disease, can be deemed adequate which does not include a microscopical study of his blood and dejecta."

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DR. J. B. GUTHRIE read on

Report of a Case of Uncinariasis.

It is rather remarkable, in view of the demonstrated prevalence of this disease in the Southern States and of the fact that the Charity Hospital receives patients from all of them, that but one

case is on record up to this time as having been found in New Orleans, which case was reported by Dr. C. H. Tebault, Jr., in 1899. In this case, the identification of the ova in the feces was done by Dr. O. L. Pothier. Since the attention of the local profession was directed especially to this internal vampire during the recent meeting of the American Medical Association, a search has been made among the patients in the Charity Hospital, and since the writer's good fortune in seeing this case on July 21, 1903, up to the present, three more cases have been found in which microscopical diagnosis has been made.

This case, it is my privilege to report through the courtesy of Dr. Joseph Holt, who is at present carrying on the treatment and who referred the patient to us for pathological examination.

The patient is a white male aged 18, who was born in Cheneyville, Rapides Parish, La. At the age of two moved from Cheneyville to a point in Rapides Parish on Bayou Robert, six miles from Alexandria, where he lived for six years. He then moved to another point on Bayou Rapide, about five miles from Alexandria, where he has been for the last 13 years.

Father died three years ago, at the age of 51, of some liver trouble, the exact nature of which is unknown. He was sick two months and, according to patient's statement, was pale and skin had a yellowish tinge.

Mother is living and is apparently in good health.

Patient had two brothers, one of which died in infancy and the other is living, aged 12, well nourished, with good color. Patient states that this brother is as tall and of about the same weight as himself.

Of three sisters, aged respectively 21, 15 and 9, the oldest is in good health. She has been away from home a good part of the time.

The sister who is now 15 years old is somewhat pale and has had fever occasionally,—two years ago and again last year.

The youngest sister has the same color of skin as himself, but is not quite so pale. She has the same prominent abdomen.

Patient himself gives a history of no other illness excepting an attack of malaria at the age of six and another attack of the same sort last year. From the first attack he made a good recovery

and was entirely well until six years ago, when he began to be progressively paler in color. Three years ago a yellowish tinge manifested itself in the skin in addition to the pallor. He has had diarrhea for several years past. No history of "ground-itch" nor of prevented appetite could be elicited. He suffers with continual attacks of epigastric pain of a colicky nature, shortness of breath on the slightest exertion. He had never worked excepting for a few hours at a time gardening. Two years ago he was sent to a high school in Kentucky; but left there after four months, being unable to apply himself sufficiently to keep up with the work. He learned easily, but soon forgot.

The soil in the neighborhood of his home is in part sandy and in part clay in nature. That upon which the dwelling is located is clay; however, the surrounding fields are sandy, as is also the garden where he works, which is removed several hundred yards from the dwelling.

The female members of the household are accustomed to use an ordinary closet made by digging a pit in the ground. This has been moved three or four times during the last 13 years and the trench filled up. The closet is at present about 30 to 40 feet from the well which furnishes the drinking water for the family. The boys are in the habit of defecating in the field; some distance away from the house. They rarely use the closet. Patient is a blonde, with sandy hair and blue eyes. His height is five feet two and his weight 85 pounds. His chest measures 27 inches and the abdomen, at the level of the umbilicus, 31 inches. The appearance is rather striking, the eyes show a marked exophthalmos and the "stare" which Stiles calls attention to as being such a common accompaniment of the disease is very apparent. The scleræ are tinged yellow and the skin also is of a lemon-yellow color. The mucous membranes, where visible, are markedly anemic. The face presents a puffy appearance, especially marked in the cheeks. Jugular pulsation is noticeable. The tongue is slightly indented at the edges, pale and has a brownish coating. None of the oval spots noticed by Stiles and others are to be seen. The teeth are stained brown, similar in appearance to a tobacco habitué, although the patient has never used tobacco in any form.

He attributes this staining of the teeth to the immense quantities of iron which he has taken during the last few years.

The lungs are normal to physical examination. There are loud hemic murmurs heard over the entire precordial region, most marked at the base of the heart.

The liver shows marked enlargement.

The spleen is very much enlarged and can be felt distinctly about two inches below the costal border.

The abdomen is very prominent and evidently contains fluid;—fluctuation noticeable. The percussion note is flat in the flanks and abnormally tympanitic in the umbilical region when patient is in a recumbent position. No edema of the extremities exists.

The genitals are small, and pubis shows no growth of coarse hair and none is visible on any part of the body, excepting scalp. The voice is not that of a youth who has passed the age of puberty, although not actually treble in quality. The larynx has not the prominence at the thyroid angle that we should expect to find in one of his age who has lived in the South.

On July 21, 1903, we made the following examination:

Urine.—Spec. Grav., 1016; Reaction, acid; Color, yellowish red, clear. The color of the urine was the only feature worthy of note in this examination. It was exactly that of a dilute solution the eosin. The fluorescence was marked. We were inclined to the belief that the glass into which he voided urine might possibly have contained a small quantity of eosin; but a specimen taken next day and examined by Dr. Lemann presented the same anomaly. The fluorescence of the urine I cannot account for. No mention of this condition is to be found in the literature of the disease. This peculiar color has disappeared since treatment was instituted.

No albumin was found and no sugar. There was a marked indican reaction. Examination of the sediment showed: Leucocytes, few; bladder epithelium, few; crystalline urates, few; calcium phosphate crystals; bacteria, few.

Blood.—Fresh specimen contained no free motile pigment granules, no plasmodia malarie. Very little tendency to rouleaux formation was observed.

Examination of stain specimens showed many pale corpuscles, numerous shadow corpuscles; many vaculated corpuscles; poiki-

locytosis of moderate degree; microcytes in moderate numbers; few normoblasts; no megaloblasts; polychromatophilia; no plasmodia malariae.

Hemoglobin 22 per cent. 2,910,000 trythrocytes per cubic millimeter. 10,000 leucocytes, per cubic millimeter. Color index .353.

Differential Leucocyte count:

Polymorphonuclear Nautrophiles.....	50.66	per cent.
Large Lymphocytes.....	33.35	“ “
Small Lymphocytes.....	8.33	“ “
Eosinophiles	4.66	“ “
Basophiles	1.00	“ “
Myelocytes	2.00	“ “
	100.00	

Upon the above findings we were of the opinion that the condition was one of secondary anemia. The absence of megaloblasts excluded pernicious anemia and the small number of myelocytes, together with the moderate leucocytosis enabled us to exclude splenomyelogenous leucocythemia. On the other hand the presence of an eosinophilia slightly above the normal average as given by DaCosta, strengthened our suspicion of intestinal parasitism. Accordingly, the next day, a specimen of feces was brought to us for examination and the report upon this was as follows:

July 22, 1903.—Feces, fluid in consistency, of a reddish brown color, contained:—starch granules; oil globules; triple phosphate crystals; vegetable fibers and debris; shreds of striped muscle; pus; blood; and ova of *Uncinaria Americana* in great numbers. Stiles' blotting-paper reaction was positive. (This latter was of course unnecessary where microscope was used and is vastly inferior to the microscope as a mode of diagnosis).

Patient was sent by Dr. Holt to the New Orleans Sanitarium as soon as the diagnosis was established. Upon entering (July 22), the temperature was 99 4-5°, pulse 90, respiration 20. A purgative (Apenta water, 6 oz.) was given and a meager liquid diet, consisting in part of panopepton, ordered. During the 24 hours following had two loose stools which contained ova, although blotting-paper test was negative.

On the following day, July 23, the purgative was repeated at 4 A. M., and strychnin sulphate, gr. 1-30, with digitalin, gr. 1-60, was given hypodermically. At 8 and 10 a. m., respectively, 20 gr. of thymol was given in capsules, no alcoholics being allowed during the day. All of the feces passed during the 48 hours following were examined and between 75 and 100 adult worms were found, females predominating, besides numerous ova.

A tonic composed of arseniated hemaboloids $\frac{1}{2}$ ounce, 3 times a day was administered from the beginning of the treatment, being discontinued on the days that thymol was given. Patient showed improvement the day following the first thymol treatment and volunteered the statement that he felt better than he had in years. At the end of one week the abdominal measurement had decreased from 31 to 27 inches.

On July 30, a second treatment of 40 gr. of thymol was given in two cachets two hours apart, followed but not preceded by a purgative. The examination of all feces evacuated during the following 24 hours showed numerous ova; but no adult worms.

A light diet was allowed until August 4, when a saline purgative and meager liquid diet was again given preparatory to a treatment with thymol on the following day. This was given in two 20 gr. doses, followed by a purgative of castor oil. All stools were again examined and again ova and no adults found. No blood appeared in the stool at this examination.

On August 7, a fifth treatment with thymol was given, this time one dram divided into two doses preceded by hypodermic stimulation, as before, and also preceded and followed by a purgative. Three examinations of the feces passed subsequent to this showed neither ova nor adult specimens of *Uncinariaria*. Before discharging the case, however, several more examinations of the feces will be made and if ova are again found, another course of thymol will be given, until the examinations continue negative. Here we see practically illustrated the clinical fact that has been dwelt upon with emphasis in the literature, that although a single treatment will often suffice to rid the patient of these parasites, often it is necessary to repeat the dose as often as 8 or 10 times.

The case which Dr. Holt has kindly consented to allow me to bring before you to-night is typical of a widespread infection and

occurring as it does in this degree of severity, he who runs may read. The case serves to illustrate the necessity for careful examination of feces both as a diagnostic measure and as a guide in the management of the case. But for the subsequent examinations the boy might have been allowed to go home with adult worms still in his intestines.

It might be of interest to mention that up to the present, the temperature has been normal most of the time, the maximum being 99.8° and the minimum, 98.1° , after a dose of thymol. Pulse has ranged from 78 to 105. Respirations always 20. There has been no disagreeable effect whatever experienced even after the drachm dose of this substance, excepting a smoky hue to the urine, appearing a few hours after the last treatment, which urine, however, was only transitory.

To one accustomed to seeing these cases such an appearance as presented by this boy would at once excite suspicion; we are reasonably sure, however, that the patient has been under treatment for several years and the true nature of the disease not even suspected. Without specific treatment the boy's life would have been cut short and even the remnant made miserable and useless by the disease. Now, with proper treatment directed towards securing expulsion of all of the adult worms, he will probably be restored to health and usefulness. Therapeutic measures in these cases in effect resemble somewhat the almost miraculous transformation which we see in the use of thyroid extract in cretinism.

After the above study of the case of this boy, we are convinced that the anemia of the two sisters at home, which are mentioned in the history, is due to the same cause. When the practitioners of this section come to realize the number of these cases that exist in this and the surrounding states, we shall be spared the humiliation of reading reports of cases like the one which Capps of Chicago reported in 1902, in which the patient had sojourned for the 15 months previous in a hospital in New Orleans and had been discharged with a diagnosis of pernicious anemia. In this case examination of feces showed the case to be one of severe ankylostomiasis.

The examination of feces is not difficult; but, when it comes to washing and sedimenting, disagreeable (Stiles to the contrary

notwithstanding); however, I do not know of any more satisfactory pathological examination. When ova are found the diagnosis is positive and if feces are washed and sedimented and sufficient number of slides examined with negative results, we can be almost assured of the absence of the parasites. It is difficult to name a condition in which such extreme dyscrasia exists where the prognosis is so good under proper treatment.

The recognition of this disease, its prophylaxis and treatment, offers a field of great possibility in the physical and mental betterment of individuals and communities. Especially should the study of this parasite appeal to the practitioner who lives in the regions where the so-called "dirt-eaters" and "poor white trash" abound.

In concluding, I wish to express my thanks to Dr. O. L. Pothier for confirming the identity of the ova, which up to the time of making the first examination I had never seen, and to Dr. I. I. Lemann for aid in examining some specimens of the feces.

DISCUSSION.

DR. HOLT stated that when the case, upon which Dr. Guthrie's paper had just been read, was brought to him for treatment, he at once recognized a condition that he had seen many years ago in the hills of Mississippi, where he had spent the earlier part of his professional life. He could now recall many cases of "dirt-eaters" in that section who were thought to suffer from pernicious anemia and malaria, but now he knew that unquestionably they were victims of the *uncinaria*. When this case was examined he told the mother of the boy that since her son had suffered for seven years and had been under constant treatment, deriving no benefit, he would not prescribe without first having made a positive diagnosis; he also told her he was confident the case was a victim of internal parasites. Dr. Guthrie's paper having so ably brought the case to the Society, he felt that he could add nothing to further its completeness. He was satisfied that a great many cases of this disease would hereafter be relieved that had heretofore gone to the grave.

DR. POTHIER reported three cases which he had recently observed in the Charity Hospital. The first case came from Lutchter,

La., that was supposed to suffer from malarial toxemia. She was anemic and craved for vinegar, pickles and all acids. The second case came from Pearl River and was thought to suffer from a sort of anemia and kept in bed, owing to the extreme weakness. The third case was that of an Italian woman that had left the Hospital before a positive diagnosis could be made, though he felt certain she was a victim. The first case was up and about the ward feeling better, then worse. In the first two cases he found both the ova and the adult. In the third case he had not yet made a positive diagnosis when the patient deserted. Attention was called to the grouping of cases in one family. It is more than likely when one case occurred in a family that there existed other cases. It would be well to investigate. The doctor exhibited slides showing the ova and adult form of *uncinaria*.

DR. BARNETT said that he had two cases of uncinariasis in his Hospital ward under observation at present. His first impression when the cases were first seen by him was that they were cases of chronic malaria. Later his attention was directed by Dr. Pothier to the possibility of uncinariasis existing; accordingly the feces were examined and found positive. One of these cases presented a most aggravated type, the anemia being pronounced, the facies puffy and markedly "Stylic" in character. The thymol treatment was instituted and improvement had been decided and constant.

DR. DABNEY stated that in 1898 he had the pleasure of calling the attention of the Society to this disease, it then being known as *ankylostomiasis duodenalis*. It was during his residence in Colombia that he had occasion to become thoroughly acquainted with the symptoms of this disease. As to the dosage of thymol he wished to caution the members against administering proportional doses to children. Children are greatly depressed from thymol and a child three years old should not take over one grain dose at a time. He knew of cases on record in which from two to three drams of thymol were given at a dose. Thymol was insoluble in water and is best administered with water as a vehicle. If given in rum it is very soluble and likewise toxic. In Columbia, where the disease was most prevalent, thymol was at one time given with rum, these cases usually ended fatally and it was the

observation of the laity that a patient enjoyed a better chance of recovery from the disease than from the treatment. These cases were, as a rule, so anemic that it seemed to him unwise to purge primarily, but thought it sufficient to give the thymol to be followed afterwards with a purgative. Uncinariasis was essentially a country disease. It was prevalent in the negro of Colombia. He had seen negroes in the tropics who suffered from this disease, but who showed not the slightest ill effects therefrom, being physically powerful and continued their occupation as though nothing abnormal existed. It occurred to him that possibly the inability of the Caucasian race to raise children in India was due to the ravages of this intestinal parasite.

DR. C. H. TEBALD, JR., believed, that as far as he was able to determine, he was the first to call the attention of this Society to ankylostomiasis. He was down in Cuba, from where he had just returned, when he reported his case, that he had an occasion to make observations in connection with this disease. The case he reported to the Society was an inmate of his ward at the Charity Hospital. Various diagnoses had been made, phthisis, pernicious anemia, malaria, etc. The boy had returned to the Hospital for the third time and was regarded by the resident staff as being in hopeless condition, when at first sight he made the diagnosis of ankylostomiasis, which was readily corroborated by Dr. Pothier. In regard to Dr. Lemann's assertion that so great a proportion of anemias were due to uncinariasis, he wished to take issue, believing that it caused a very small percentage of such cases. He did not believe that there were many dirt-eating children in the South. He thought that alcohol had decided influence upon the action of thymol. Thymol had been harmless in its effect upon the cases in which he had seen it used. Without alcohol he would recommend that from 15 to 20 grains of thymol three times a day for one day, followed by a purge. Then an interval of three days and the dose repeated several times would ultimately entirely relieve the intestines of the ova and adult worms. He had no confidence in male fern, but thought that thymol was the sheet anchor of the treatment.

DR. PARHAM said that the subject presented in the papers just read was extremely interesting to him, since he recently had a case

under observation in which uncinariasis had been suspected. After having examinations of the blood and feces made by Drs. Pothier and Guthrie, the result had been negative, but he was still inclined to believe that there was strong possibility of the patient being the host of the *uncinaria*, and he would endeavor to have other fecal examinations made. This patient was referred to him from the country by a physician who had recently heard Stiles' paper read at the meeting of the American Medical Association and being so impressed by the article upon returning to his home he referred this case to him, suggesting that it was a case of uncinariasis. He thought the interest excited by this subject showed how valuable it was to have such meetings as that of the American Medical Association in any community. It seemed strange that though Drs. Dabney and Tebault had called the attention of the profession to this disease sometime in the past and had actually published articles on the subject, that so little attention had been paid to the condition which we can but suspect must be much more common here than we had heretofore believed.

In Capp's recent article a review was made of cases reported in the United States, there being 51 cases in all, only one of which was recorded from Louisiana, most likely that of Dr. Tebault, as his article is found in the bibliography. In reading of the Egyptian chlorosis one is struck by the great fondness of these victims for eating Nile mud. In fact, on certain festive occasions it would be passed around and eaten, as it was thought that if Nile mud was so good for the crops, it must be good for the stomach. In a recent examination of Indian laborers brought to Assam, out of 547 cases examined, the uncinaria was found to exist in 454. Smith, of Galveston, Texas, in examining the feces of 88 apparently healthy people, found the *uncinaria* in 8 of them. Judging from Stiles' recent report we must be prepared to admit the possibility of our having often overlooked this disease. It was to be hoped that in the future that the profession of New Orleans would have no such reflection made upon it as occurred in Capp's article, where he referred to a case of uncinariasis that had been an inmate of a hospital in New Orleans for 15 months under treatment for pernicious anemia. The blood analysis in this case showed in Dr. Capp's hands an increase of the eosinophiles, which suggested

the possibility of intestinal parasites. Upon examination of feces of this case the uncinaria was demonstrated. The patient died. This case showed the great importance of making routine blood analysis and he believed it was a field to which greater attention should be paid. He was exceedingly glad to have been at this meeting and it seemed to him that the investigation should be pushed further, suggesting that the inmates of our jails who presented symptoms of chronic anemia would be a fertile field for research. Ashford, in Cuba, states that out of 20 cases of tropical anemia, 19 of them revealed the uncinaria. Ought we not to admit here to-night that we have been overlooking the importance of this subject? He remembered, some years ago, when Assistant House Surgeon at the Charity Hospital, he saw cases suffering from general anasarca, grave anemia, no albumen and no signs pointing to the heart, kidneys or liver as the cause of the condition. There was a history of having been fed on partly putrid meat. He believes now that some at least of these cases may have been due to the hookworm. He believes that many cases of anemia in this region, heretofore fatal, may hereafter be saved by the early recognition of this parasite as its cause. The disease will in time cure itself, provided the subject lead a hygienic life, so as to avoid re-infection, for the ova can not reproduce themselves in the intestinal tract, oxygen being necessary to their development into larvæ, which must be introduced into the intestinal canal in order to perpetuate the disease. The supply being cut off the disease will in course of time get well, provided the uncinaria itself has not too far advanced. He felt that the thanks of the Society were due the gentlemen who had so satisfactorily presented the subject in the admirable papers read here to-night.

DR. MILLER stated that in four cases he had obtained good results from thymol administered for tapeworm. It was given in five-grain doses three times a day, the patient taking only liquid food. In two instances the worm passed when only two doses had been taken. The other two were expelled after the sixth dose. The drug can be taken for days without harm and is free from the severe symptoms that attend the other drugs usually prescribed for the affection.

DR. LEMANN thought that the keynote had been struck by Dr.

Parham when he stated that we had been having our eyes shut to this condition. As to Dr. Tebault's statement that he thought the condition rare, he thought anyone would be convinced to the contrary should they review the literature and see how literally swamped the periodicals are with articles on this disease. Dr. Stiles' article alone was sufficient in itself to demonstrate the great prevalence of this condition in the Southern States. In but a cursory examination of a few cases in the Charity Hospital, three cases had already been found and Dr. Lemann was of the opinion that further investigation would reveal many more. Looking back, he could recall during his internship cases at that time diagnosed as pernicious anemia, which he now felt confident were subjects of uncinariasis. He thought this subject a most important one and the profession should in the future keep their eyes open and make an early diagnosis.

DR. GUTHRIE stated that one point that had not been touched in the discussion was the question of the economics of this disease. It was most pleasing to think that a disease that had heretofore been neglected and not understood, causing the victim to undergo degeneration, becomes worthless and lazy, and resulting in a type known as the "poor white trash," was now readily diagnosed and cured. He did not think that the importance of this investigation could be overestimated when it was considered what a Godsend it was to the inhabitants of the hills in the Southern States. They now knew the specific cause of the trouble and were in possession of a reliable remedy.

Another point was that uncinariasis was found chiefly where soil is sandy and depended upon the free access of oxygen to the ova in order to develop to larval stage. He thought this is a very beneficent provision, because the worms could not multiply in their host. Clay soil prevented the ova reaching larval stage and many of them were cut off from the air.

As to giving alcohol with thymol authorities widely differed, some claiming it greatly increased its toxicity, others that it was the proper cardiac stimulant for this purpose. Thymol in large doses sometimes produces a dark, smoky color of the urine, but upon its withdrawal this would clear away quickly. In the treatment he thought the interval between thymol treatments need not

necessarily be so long as one week, as recommended by most authorities.

MEETING OF AUGUST 22, 1903.

DR. GRANER, President in the chair.

DR. S. M. D. CLARK read a paper entitled

Puerperal Infection. Brief Considerations of the Nature of Puerperal Infection and Its Etiological Treatment, With Special Reference to the Use and Abuse of the Curette.

Puerperal infection has attracted the attention of medical men since medicine was in its crudest form. Records of its existence are found in the earliest literature, passages referring to it being noted in the works of Hippocrates, Galen and many of the oldest writers. The view universally accepted for many centuries by the ancients was that the fever originated from the retention of the lochia. Plater, in the Seventeenth Century, argued that it was essentially a metritis; he was followed in the next century by Puzos who advocated as its cause his milk metastasis theory. Thomas Kirkland, in 1774, briefly wrote on the contagiousness of this disease, but it was not until 1843 that the first dawn of truth, based on this theory, was brought to the attention of the American profession, when Oliver Wendell Holmes fired the first gun, reading an essay in which he fearlessly declared that it was his belief that the disease was a contagion and owed its existence to the transmission from patient to patient by the midwives and attending physicians. Subsequently, Sir James Simpson and Trousseau wrote upon the lines suggested by Holmes, but the theory of the contagiousness of this disease was not recognized by the medical world until 1847, when Semmelweiss, as Assistant Surgeon of the Vienna Lying-In Hospital, published his famous monograph, in which he clearly demonstrated that puerperal infection was essentially a wound contamination, carried by the hands of the attendants into the genital tract. Even though Semmelweiss had, by rigorously enforcing all attendants to wash their hands, then immerse them in chlorine water, succeeded in reducing the mortality of puerperal cases in the Vienna Hospital from 11.4 per cent to 1.27 per cent., his observations were unappreciated and attracted but

little attention until the school of Lister identified the relation between bacteria and wound contamination.*

The introduction of antiseptic followed later by aseptic methods, has greatly reduced the mortality and frequency of this disease in hospital practice, but to our shame we must admit that the wonderful reduction in the mortality at the maternity hospitals that followed the full appreciation of these discoveries has been but partially realized in private practice. Dr. Frederick Wiggan states in a recent paper that he believes the mortality is as high to-day in civil practice as it was fifty years ago. Dr. Pryor believes that more women die to-day of puerperal sepsis in private practice than they did before the introduction of Lister's methods. Whereas these assertions are to be accepted with a certain amount of reserve, yet when the statistics are studied, one is amazed at the alarming high rate of mortality that still exists. In the light of our present knowledge puerperal infection is all too prevalent, records showing that of all deaths of females, one per cent. die from this disease. The New York City Board of Health Department records reveal in the past two years 178,138 births. Of these, 1,290 women died from the complications of childbirth. 4.94 per cent. of this number died of puerperal sepsis. Bacon, in studying the statistics of Chicago for forty years prior to 1896, found that in the death of women between 20 and 50, 12.74 per cent. died of puerperal fever. Ingerslev states that in Denmark, with the exception of tuberculosis, puerperal infection is the most frequent cause of death in women between 20 and 50 years of age.

It was my purpose to incorporate in this paper some statistics on the mortality from puerperal sepsis in New Orleans, but lack of time prevented my so doing. At a future date I hope to present a short paper on the local mortality of this disease. In looking over the statistics of one of our local institutions, it is noticed that only the deaths from puerperal infection are recorded, thus giving no idea of the frequency of its occurrence. The records of statistics from civil practice in reference to cases of puerperal infection as found in the local Boards of Health do, in my mind, fail to represent over 50 per cent. of the actual cases. The medical men

* I am indebted to Dr. Whitridge William's article on puerperal infection that appeared in his recent and most excellent work on obstetrics for some points of history and also for the general plan in the preparation of this paper.

of to-day, knowing with what censure the laity and professional brethren regard the attendant of the puerperium who has sepsis following his work, naturally shields himself as much as possible and seldom accedes to the presence of infection when it exists. Another point is that even though puerperal infection may not be the cause of death, still the great ravage and damage it does in each special case is well known, and in comparing statistics of this illness, I regard its frequency as important as its mortality. In private practice the rate of mortality is variously estimated from 10 to 50 per cent. Any disease having so high a mortality strongly suggests the existence of defective methods. In the past ten years this question has been allotted much time and thought in every obstetrical and gynecological assembly. Warfare is being actively waged against the lax methods still in vogue by the rank and file of the present day profession and since this subject has not been recently brought before this Society for its consideration, I thought it timely that we briefly review some of its most important phases, hoping for a discussion from which some of us might derive benefit.

BACTERIOLOGY.—Bacteriology, when in its infancy, found in puerperal infection a most fertile field for investigation. As early as 1865, the streptococcus pyogenes aureus was identified as being the most fatal cause of this infection. Latterly the staphylococcus pyogenes aureus was also found to play an important role in the production of this disease. In 1893 Kronig first identified the gonococcus as a frequent source of infection. He was able to identify in 179 cases 50 of them to be due to the gonococci. Many of these cases recovered spontaneously, none being fatal. The bacilli coli communis was shortly afterwards positively demonstrated as being an important factor in the production of this disease. In the sapremic form of infection the bacteria found are usually of an anaerobic nature, many of them producing foul-smelling secretions associated with a gaseous and frothy discharge. Among other micro-organisms which have been found associated with this disease, may be mentioned the typhoid bacillus, some types of bacillary infection, the Klebs-Loeffler bacillus and the gas bacillus of Welch. Williams, in his most excellent article on puerperal infection, relates the classification of Kronig's 179 cases as follows: They are divided into three groups, the pyogenic, gonorrhoeal and sap-

remic. In the pyogenic group there are 79 cases in which the streptococcus and staphylococcus were found; of these 79, 75 were due to the streptococcus and 4 to the staphylococcus. The gonorrhoeal group were 50 in number. There were 50 sapremic cases, 43 of which failed to grow on the usual culture media, 32 of them being purely anaerobic. Williams' classification of his own 150 cases gives a fair idea of the relative frequency of the different micro-organisms that take part in the production of this infection. Of these 150 cases, 31 were of the pure streptococcal variety; 11 of them originated from the bacilli coli communis, 7 from the gonococcus, 4 from the staphylococcus, 45 were due to bacteria that failed to grow on the usual culture media, and 25 absolutely sterile. There were in this series of cases quite a number of the mixed type of infection. In short, the five most frequent varieties of micro-organisms found associated with uterine infection are in their order of frequency of occurrence—first, the sapremic or putrefactive variety; second, the streptococcus; third, the gonococcus; fourth, the bacillus coli communis; fifth, the staphylococcus. The symptoms presented from these different forms of infections greatly differ, depending upon the virulence of the organisms. The streptococci head the list in the high rate of mortality. The staphylococcus, which was at one time thought to be productive of mild symptoms, is now being regarded as a grave form of infection. The gonococcus and colon bacillus as a rule produce much milder symptoms than either of the preceding. The purely putrefactive or sapremic form usually give rise to mild symptoms and, if properly treated, rarely proves fatal.

PATHOLOGY.—In order that we vary our surgical treatment according to the species of organism producing infection it will be necessary to first consider the pathological anatomy of this disease. The pathology of the puerperium is so extensive that it would be futile for me to attempt to review it in its whole in the short space of time allotted and since it is my desire to merely consider the surgical phase of puerperal endometritis, my attention will be limited mainly to the pathology of the endometrium. The interior of the uterus immediately after delivery, with its enormous area of raw surface, bleeding walls, large patulous and thrombosed placental sinuses and flabby construction of the muscular structures,

all go to form an ideal nidus for the propagation of any infection. The endometrium reacts differently according to the type of micro-organisms with which it is infected. It is mainly due to the studies of Bumm and Doderlein that we have been able to classify puerperal endometritis.

Histologically and clinically there are two forms of endometritis, the putrid and the septic. The histological picture of a section of the uterus in the case of putrid endometritis, presents, as portrayed by Bumm, first, a thick layer of necrotic material lining the uterine cavity. In and beneath this necrotic layer are found bacteria. A thick layer of small cell infiltration is next encountered and is known as the zone of reaction. Beyond the zone of reaction is found normal uterine tissue. The micro-organisms are limited almost entirely to the superficial necrotic layer only. A few may be found in the zone of reaction, but none can be demonstrated as having penetrated beyond this point, thus showing what a most efficient barrier nature establishes in its efforts to limit the invasion of bacterial life. This is a form of endometritis that we find associated with the putrefactive varieties of organisms and mixed infections. The infection remains confined to the endometrium and its reaction is pronounced. The interior of the uterus in the putrid form of endometritis presents a thick layer of necrotic material imbedded in which are a large number of micro-organisms and to the touch the surface is rough and boggy. The character of discharge flowing from such an infection is, as a rule, profuse, chocolate colored, thick, creamy, frothy and emitting a foul and stinking odor. This form of endometritis, as a rule, is not malignant and will end in recovery unless injudiciously treated. On the other hand, the septic form of endometritis is the most grave variety. The interior of the uterus is smooth and firm to the touch, there is no necrotic layer, as seen in the putrid form, the micro-organisms rapidly migrate to the uterine structures and the reactionary zone is but sparsely developed and no barrier is formed by means of cell proliferation to offer resistance to the invading enemy. The character of discharge from this class of infection is, as a rule, scant and possessed of but little odor. The discharge from an endometrium infected with the gonococcus is possessed of some characteristics that may help to lead to a diagnosis. It is of

a thick, rosy and glairy nature. The septic endometritis on histological examination shows that the bacteria are found in the sparsely developed zone of granulation and are detected forcing their way through the decidua and along the lymphatics outward through the muscular wall toward the peritoneal covering. In one type of endometritis we then have nature establishing a barrier which inhibits the progression of the non-virulent organisms. In the other form the enemy seems to be possessed of such malignant tendencies that the tissues being so overwhelmingly attacked fail to offer but a feeble line of resistance and the reactionary zone of small cell infiltration is not or sparsely developed. The invading army in one type seems so overwhelming that the fixed tissue cells and leucocytes are unable to perform their usual phagocytic properties, are completely routed and the enemy forces itself by way of the lymphatic tract and walls of the vein to the uterine structures, reaching finally the peritoneum and periuterine connective tissues. It is the localized form of septic endometritis in which nature has through the most energetic efforts been able to limit the progress of the invading army of the attenuated streptococcus and staphylococcus by means of its granulating zone, to which I specially ask your attention. In this connection there is here an organism which, if not disturbed or nature's plan of resistance injudiciously interfered with, will be spontaneously defeated. After the bacteria have gained the outer limits of the uterus it may attack one of many structures, the peritoneum, the Fallopian tubes, parametric connective tissues, etc., anyone of which may end in pus formation or by resolution. The pyemic form of puerperal infection usually originates from an infected thrombus at the placental seat of attachment. The thrombus may be broken down, swept into the circulation, causing metastatic abscess, from which no part of the body can be eliminated.

SOURCE—It is unanimously accepted by the profession that the infection in normal cases is caused by the introduction from without into the genital tract of pathogenic organisms. Though it is recognized that infection of the genital tract may originate from many sources, such as self-inoculation from eczemas, etc., still this as a causative factor plays but a small part in the etiology of the disease. The two most frequent carriers of infection to these parts

are, namely, the hands and instruments of the accoucheur. Up to five years ago the question of the secretions of the normal vaginal tract acting as a host for the pathogenic micro-organisms was a point sharply contested. From the researches of Williams, Menge, Kronig and others, it is now accepted that the vaginal secretion is not only free from bacteria, but possessed of antiseptic qualities. The gonococcus is the only pus-forming organism that can survive in a normal secretion. Bacteriological conclusions reached by Dederlein, Bumm, Kronig and others conclusively prove that the interior of the uterus is sterile above the internal os and that the cervical canal and vagina are free from bacterial life, except the gonococcus and possibly some anaerobic bacteria. The vaginal secretions, especially during pregnancy have marked bactericidal power. Its germicidal properties are generally attributed to its marked acid reaction, the presence of Doderlein's vaginal bacillus and the phagocytic action of leucocytosis excited by chemotaxis. This question may be considered as forever settled and those who were once slow to accept its truth have finally been forced to abandon their former position.

SYMPTOMS.—In discussing the symptoms of this disease it would be both irksome to you and a loss of time to take up the stereotyped symptoms with which you are all so thoroughly familiar. My remarks will be devoted mainly to facts regarding the local symptoms produced by the infected endometrium. The symptoms accruing from the two forms of endometritis markedly differ. Where the infection is of a virulent kind, due usually to the streptococcus and staphylococcus, the symptoms manifest themselves early, the chill is followed by a fever that is usually persistent, the pulse is out of proportion to the temperature and the discharge is scanty, giving off little or no odor. The higher the fever, the more malignant the case, the less the discharge. Upon digital examination the interior of the uterus in this class of cases will be found to be smooth and firm to the touch. On the other hand, when the infection is not of a malignant tendency, such as arise from pure saprophytic variety of organisms, colon bacillus, gonococci and the attenuated pyogenic germs, the constitutional symptoms are not grave, the fever does not persistently remain on so high a plane, and the discharge, instead of being scant and

practically odorless, is copious, frothy, of a creamy consistence, chocolate colored and emits a foul odor. To me this is a point the value of which cannot be overestimated and which should be thoroughly comprehended by every man treating this affection. It is of inestimable value for the attendant to be able to make proper deductions from the character of discharges that come from an infected uterus. Upon this point many of us frequently err, for as a rule the discharge is thought to indicate a serious condition when it is profuse and accompanied by an offensive stench; but, as we have mentioned, the opposite is generally the case. The clinical picture presented in the true types of endometritis is marked and in the pure form of each the difference is so great and the symptoms so characteristic that we are frequently able to make a bedside differential diagnosis. The stereotyped chill and rise of temperature are symptoms that attract our attention in puerperal infection. When the case has progressed successfully for several days, then followed by a sharp rigor, with tenderness in the lower part of the abdomen, we can be reasonably positive that the infection has reached the peritoneal covering and in making a careful abdominal palpation one is confronted with a metritic salpingitis, parametric infiltration, etc. Under different circumstances the virulency of bacteria widely differ. In the most malignant cases of septic endometritis the onset is overwhelming in character. After a strong chill the fever rapidly rises, remains high, the pulse quickens and later becomes weak and thready in character. The bodily prostration is great, intense pains are complained of in the lower part of the abdomen, the walls become rigid and tympanitic, the intestines are distended, and we find ourselves dealing with a fulminating type of septicemia that has been so rapid in its progress that the endometrium has utterly failed to offer the slightest resistance with its barrier of small cell infiltration, which is but little developed in this class of cases.

DIAGNOSIS.—The clinical history of a case of puerperal infection is so clear that a diagnosis is seldom made with difficulty, and though it is recognized that typhoid and malarial fevers, gastrointestinal auto-intoxication and breast inflammation do cause complications in some cases, still this condition of affairs is rare and the practitioner is only too prone to deceive himself in attribu-

ting the rise of temperature to something other than uterine infection. It should be laid down as a general rule, to be followed by every physician, that whenever a rise of temperature is observed in the puerperium, it should be regarded as arising from an infection of the genital tract until it has been clearly proved that its presence is due to something else. I have already in discussing the pathology of this disease mentioned the value of the character of discharge as being a valuable aid in making a differential diagnosis in the different types of endometrial infections. Mann states that the gonococcus usually manifests itself late, the tenth day or even later. The infection of the baby's eyes shortly after delivery frequently points to the presence of the gonococcus as a causal agent of an infection. The most valuable procedure to pursue in arriving at a diagnosis of the type of infection and one which has been up to the present time sadly neglected in this city, is that of the *bacteriological examination of the lochia*. Our diagnosis has heretofore been inadequate. The condition should not be classified in one broad statement of endometrial infection. Not one of us would pursue the same course for a diphtheritic type of infection as we would for that of a gonococcal. It is claimed by some that bacteriological examinations necessitate the loss of much valuable time and require the technic of an expert, but this is scarcely tenable. The method of procedure in taking cultures consists, first in seeing that the external genitals have received a thorough mechanical cleansing with German green soap and then freely irrigated with an antiseptic solution. With clean hands and instruments, the patient in Simms' Position, a speculum introduced, the cervix seized with a vulcellum, the external os is wiped with sterile cotton, then a small sterilized tube taken from its container inserted in the interior of the uterus, care being exercised in not touching the vaginal tract. A small syringe is next attached to the protruding end of the glass tube, a vacuum created, the syringe detached and the tube withdrawn to have its end hermetically sealed with sealing wax. It is then placed in the container, taken to a laboratory, broken in its middle and cultures made therefrom. In 24 hours a report will have been rendered. Doderlein's apparatus is the one usually employed for this purpose. In order that this examina-

tion be made of value, the procedure in obtaining the specimen and in making the culture should be performed with the greatest care, conscience and skill. Whitridge Williams places great stress upon this bacteriological examination, and with him I believe that in resorting to this simple procedure much information and light will be thrown upon the case from a prognostic point of view. It relieves much anxiety and worry in cases that present apparently serious symptoms but upon examination the infection is found to be due to putrefactive organisms, the colon bacillus and others. It certainly will repay the operator for the little trouble he is given. Its prognostic value cannot be denied and I am of the opinion that it should be adopted as a routine practice in all our institutional and in many of our cases in civil life. It might be claimed that it is not practical, but those of us who employ it have the satisfaction of knowing that we are dealing with our cases more intelligently than those who diagnose at random. It is only through adopting such a plan of research that we will be able to further our treatment and place it upon a rational and scientific basis. We need more precise methods at arriving at a correct diagnosis. These bacteriological examinations are employed in most of our Northern and foreign clinics and certainly should not be neglected in our own.

PROPHYLAXIS.—The treatment of every disease is founded upon its cause and pathological anatomy. In taking up the treatment of puerperal infection its prevention should be first considered. There is a great discrepancy between the present day teaching in regard to puerperal infection and the result obtained in private practice. Knowing that puerperal infection is a preventable disease, it occurs far too frequently. Though childbirth is a physiological process, it so often takes place in an environment of infection that in its management it is to be regarded as a surgical procedure and the attendant should prepare himself accordingly. The chief source of infection is unquestionably the hand of the attendant and upon its thorough cleanliness will largely depend the success obtained in this class of cases. In the preparation of the hands too much reliance is placed upon the virtues of antiseptics and not enough attention or time given to the thorough mechanical cleaning by means of the free use of hot

water, green soap and brush. The underlying principle in the cleansing of the hands as well as the management of the puerperium is asepsis and not antiseptics. The too often grave error committed by those who have not had the proper training in surgically preparing their hands is to treat them to a meagre washing and trust to antiseptics for the accomplishment of the rest. The short time that most of us immerse our hands in antiseptics is a complete farce and in their employment it occurs to me that the lying-in patient is in double danger, for the operator is laboring under false delusion, nothing being farther from the truth than he possesses sterilized hands. Cleanliness is the keynote to success. All instruments should be boiled for at least 20 minutes. The boiled hand or rubber glove is a fixture in the surgical armamentarium and it is just in this class of cases, especially where the attendant has laid himself liable to infection, that the value of this agent is most serviceable. Another point to be urged in its favor is that if the hand is contaminated through necessary manipulations through the rectum the hand can immediately be made ready for introduction into the vagina by simply stripping off the glove. At least two pairs of rubber gloves should be essential in the paraphernalia necessary for delivery. Granting that the hands have been thoroughly sterilized the next part to which attention is turned is in seeing that the hand in its course of introduction into the vaginal tract is not freshly contaminated. This brings us to the consideration of the external genitals, covered as they are with a luxuriant growth of hair in close proximity to a fruitful source of infection, the rectum, all go to form an ideal habitat for pathogenic organisms. The cleansing of these parts is too frequently neglected. I believe the time will come when the attendant who fails to see to the thorough mechanical cleaning of these parts with green soap and hot water, followed by free irrigation of bichloride solution and other antiseptics, will feel in case infection develops that he has been criminally neglectful, having omitted to exercise a simple precaution from which contamination is permitted to be carried in the vaginal tract, the introductory finger being of necessity brought so closely in contact with its surface. Some of our most conservative men strongly advocate the shaving of the parts in

all confinements. This, I know, will occur to some as carrying prophylactic measures to an extreme, but it seems to me that if we shave the parts for the performance of a simple currettage in gynecological practice, that in its adoption in obstetrics, where a still more serious procedure is in progress, it is not a point over-drawn. If every attendant would keep in his mind a vivid picture of the interior of the uterus after the expulsion of its contents, presenting as it does an ideal medium for infection, I fail to see how he could feel that prophylaxis had been over-stepped. The more closely the obstetrician follows aseptic methods, the less infection will there occur in his practice. Too strong a plea cannot be made for the adoption of surgical cleanliness in the treatment of these cases. I believe the interior of the uterus should be approached with the same reverence that we do a synovial membrane or peritoneum. Unnecessary inserting of the finger into the vaginal tract is to be condemned. It is a common practice for some of us to make frequent manual examinations when from external palpation many points can be solved without subjecting the patient to contamination. In view of the conclusive proof that the vaginal secretion possessed marked bactericidal properties, the ante and post partum douche is to be considered in the light of meddlesome midwifery and is mentioned in order to be condemned. Kronig shows that lysol douches do not only fail to destroy the infected micro-organisms, but increase the time that it takes the vaginal secretion to destroy them. Statistics are numerous in showing the wisdom of their non-employment. After delivery the parts should be irrigated each time the patient micturates or defecates. A pad of sterilized gauze is next inserted between the labia, over which a bandage is worn. In the humblest homes a few sheets and a half a dozen to a dozen towels can always be obtained and sterilized by the home method of baking them in the oven of the kitchen stove. It depends upon the conviction of the attending physician as to the necessity of employing these prophylactic measures whether they will be properly applied. Quoting from the masterful plea of Oliver Wendell Holmes in behalf of the lying-in women, he says: "The woman about to become a mother, or with her newborn infant upon her breast, should be the object of trembling

care and sympathy wherever she bears her tender burden or stretches her aching limbs. God forbid that any member of the profession to which she trusts her life, doubly precious at that eventful moment, should hazard it negligently, inadvisably or selfishly."

CURATIVE TREATMENT.—Once infection is established, we are brought to the consideration of its curative treatment. As stated before, our remarks will be confined to the treatment of the different forms of endometritis. In recalling the pathology of this disease we remember that the forms of endometritis were classified into septic and putrid, each having their clear-cut histological differences. In the septic form it is to be recalled that we are dealing with a type presenting a smooth uterine interior, emitting a scanty discharge caused by the streptococcus and staphylococcus which are found imbedded in a scantily developed barrier or reactionary zone and demonstrating as further migrating their way through the zone into the uterine wall and reaching the peritoneal along the lymphatics and the venous channels. On the other hand, in the putrid forms of endometritis we are confronted with the uterine cavity covered by a superficial necrotic layer, in which are imbedded the pathogenic organisms. Just beyond this necrotic layer is found a well-marked granulating zone, in which there is to be discovered but few, if any, bacteria. Beyond this barrier of nature no germ-life can be demonstrated, nature's breast-works having proved impenetrable to the invading army.

In the localized septic metritis we find the streptococci and staphylococci attenuated in their virulence and having been successfully repelled by the zone of small cell infiltration from penetrating further into the economy.

It is a fatal mistake to invade the interior of the uterus until we are positive that the source of infection emanates therefrom. Lesions of the perineum and vagina should first positively be eliminated. Once having concluded that the symptoms that are presented are due to contamination of the uterus, our next step is to determine upon the contents of its interior, knowing that retained decomposing secundine placental fragments and other dead fetal debris are frequently associated as a primary cause of

infection. One of the most essential questions to settle is whether or not the uterine cavity contains infected material and if such be the case how shall it be removed. In order to determine this important doubt an exploration becomes necessary. There is a rule that knows no exception that the cavity of the uterus should be thoroughly emptied of decomposing material. What procedure should we adopt to facilitate this end?

The two most important points to be considered in the settlement of this is, first, make sure that the uterus is empty, and, second, accomplish this end with as little injury to the uterus as possible.

With what shall the uterine cavity be emptied? During my internship (in 1899 to 1900) at the Charity Hospital I recall that it was almost a routine practice to indiscriminately use the sharp curette in cleaning the interior of the uterine cavity. It was while serving in this assignment, where at least twenty cases were treated, that it occurred to me that the sharp curette employed as a routine measure in all forms of infectious endometritis was positively mischievous. The rate of mortality was frightfully high. I remember at that time Dr. Batchelor said to me that he was becoming very doubtful as to the feasibility of using the curette in these cases.

Increasing experience of the profession at large goes to show that the sharp curette in treating this form of endometritis is both monstrous and dangerous and cannot be too severely condemned. The use of the sharp curette used as an agent for the emptying of infected uterine cavities has had war waged against it in America, chiefly under the leadership of Williams, Fry, Pryor, Ruben Peterson, Davis, Cragin, Grandin, Stone and a host of others. In the septic form of endometritis, its surface being smooth and firm, what can be hoped to be accomplished by digging with a sharp instrument into a surface having its source of infection deeply imbedded in its structure far beyond the reach of any sharp instrument. Our aim should be to favor the localization of infection as far as possible. The only point accomplished by the use of the sharp curette seems to be the opening up of new avenues for infection and disseminate an already freely distributed infection. Pryor states that the normal

death rate in untreated streptococcic cases is five per cent., whereas those that are curetted have the large mortality of 22 per cent. In the putrid form of endometritis the less we do of an aggressive nature the better. Pathogenic organisms of all kinds will gain entrance into the general system quickly enough of their own cause. Underlying the putrid mass in the uterine cavity, nature has thrown out the granulating bed of leucocytes to oppose whatever microbes endeavor to enter the system through the lymphatic viens. Just in so far as the infection remains localized, in so far does the woman stand a chance for recovery. The great harm that follows the use of the sharp curette is positively monstrous. The interior of the uterus in the case of putrid endometritis has been aptly compared to a wet blotting paper, and in the use of this sharp instrument the very success that nature has accomplished in warding off bacteria by means of its reactionary zone, is broken down by this instrument that is hailed by some as a saviour. In the localized septic endometritis where the tissues have successfully checked the inroads of the attenuated streptococci and staphylococci, it is absolutely barbarous for one to introduce the sharp curette and break down the breastworks established by nature.

The reactionary zone cannot be reached alone and it is impossible to avoid getting beyond this barrier and opening new avenues of infection. Chills always follow, as a rule, its use, showing that new products are being thrown into circulation. It is impossible to reach by means of the curette these organisms. Besides, for the sake of argument, suppose we could reach the offending organism, how many of you have looked into the interior of an uterus that had been curetted just prior to its removal and seen what a meagre portion of the endometrium has been removed? I am sure it would astonish even the most imaginative. The Committee appointed by the American Gynecological Society in 1898, composed of Pryor, Williams and Fry, make the following report as their view on curettage: "Curettage, no matter how carefully done, serves to break the protective wall and directly infect the deeper layers of the endometrium and the muscular structures, from which the infection spreads rapidly to the peritoneum; second, the curette is a most dangerous instrument in the

treatment of streptococcal endometritis, often converting mild cases into severe ones; third, the personal experience of your Committee has shown that the mortality of streptococcal endometritis, if not interfered with, is five per cent., and that such cases tend to recover if nature's work is not undone by too energetic local treatment."

Recently I was called to treat two cases of putrid endometritis following abortions, one of three and the other of four months. In using the finger to explore the uterus of one of these cases I found it to be an excellent curette. Through its use I was able to detach an adherent decomposing placental mass and when the procedure was over I felt confident that the cavity of the uterus was positively clean and free from any placental fragment. This feeling of absolute assurance that the uterine cavity is empty cannot be experienced when the dull or sharp curette is employed. Besides, too, I claim for the manual curette that the cavity is emptied with the least possible traumatism, a most important feature to be considered in all adopted methods. There are cases in which the uterus is relaxed and the fundus cannot be explored by the finger. This condition existed in one of my cases, but I was able to overcome the obstacle by inserting a Bozzman recurrent catheter along the side of the finger and injecting a very hot solution of peroxide of hydrogen. The heat brought on rapid contraction and the cavity of the uterus could be explored with the greatest ease and when I left the case my conscience was clear as to leaving an empty uterus. Many cases are on record where uterine cavities have been treated with the blunt curette and left, thinking they had been emptied of all offending material, but to the attendant's chagrin, in a few days decomposing masses would be delivered either through nature's efforts or through those of a newly-summoned physician. In my experience I have seldom seen cases of abortion in which the exploring finger could not be introduced. Unquestionably there are cases in which the dilatation is not sufficient to permit of the introduction of the finger as an exploring agent; in such cases the dull curette is to be employed or Sim's sponge holder. The latter instrument is used most advantageously by Dr. Matas in this class of work. First, locate with finger and map out the offending mass, then use the holder

which though having a traction property does not inflict trauma. This should be used wherever it is found impossible to use the finger. I think the keynote of emptying uterine cavities consists of doing it with as little traumatism as possible, and for this purpose the finger has no superior.

After the cavity has been emptied the question of the employment of intra-uterine douches arises. This douche is at the present time employed more for its mechanical property in washing out the debris than for its antiseptic property. Williams in his streptococci cases uses a saline intra-uterine douche and then leaves the case to nature, regarding further treatment as both meddling and injurious. His mortality is 4 per cent. Researches show that antiseptic fluids possess but most superficial power of penetration and in using them for washing out the interior of the uterus very little positive good is derived therefrom, and positive harm. There are 46 deaths on record from bichloride of mercury douches. They owe their virtue more to their mechanical properties than to their antiseptic. The question of draining an uterus by means of iodoform gauze is a procedure variously adopted. I believe a strip of gauze left in the interior of the uterus to act as a wick for drainage and stimulate uterine contractions in torpid cases, is a good procedure. Witherill, in a recent article, strongly approves of Carossa's method in employing a double current drainage tube left in the interior of the uterus, around which is packed sterile gauze. Through the exit of these tubes alcohol 50 per cent. solution is freely injected. His mortality in this treatment is very low, but its employment seems questionable and is certainly difficult to execute. The tendency of the day is to clean the cavity and leave the rest to nature, supported by systemic treatment. In those cases in which the infection seems to have reached the peritoneal surface, Pryor's method of opening the posterior vaginal wall and isolating, as it were, the uterus by packing the cul de sac with iodoform bag, seems worthy of careful consideration. And should the condition present itself in a case under my observation, I would certainly employ it, believing it to be productive of great good and practically no danger. The question of hysterectomy for pus conditions

is attracting much attention, but is not being favorably considered by our more conservative surgeons.

CONCLUSION.—In drawing this paper to a close I will deduce the following conclusions:

First. Investigation of the subject reveals that there is an alarming and surprising disproportion between the mortality in child-bed from septic causes in civil practice as compared with the results obtained in maternity hospitals, and proves clearly that in spite of all that has been written and said upon the subject there is still a need for a better education and wider knowledge of the nature of puerperal infection and its mode of prevention.

Second. Recent researches prove conclusively the practical value of bacteriological examination in determining the diagnosis, prognosis and therapeutic indication of puerperal infection.

Third. The old generic conception of puerperal infection is now simply historical and has yielded to a definite bacteriological classification of distinct bacterial type of infection. Each type of subvariety being distinguished by characteristic clinical phenomena which permit of comparatively easy recognition at the bedside.

Fourth. The technic of the bacteriological diagnosis is comparatively simple and should be utilized more frequently in institutional and civil practice.

Fifth. Pathology and bacteriology demonstrate that in three-fourths of the cases of puerperal infection the morbid process is self-limited. The causal agents, gonococcal, colonic and saprophytic in general are limited in virulence and nature provides an adequate barrier against progressive or systemic infection. In these cases the histological examination of the infected uterus reveals a well-defined necrogenic layer, surrounded by an active granulation zone, which is sufficient to arrest further vascular and lymphatic invasion. In the streptococcal (true septic type) there is no necrogenic layer. The granulation zone is rudimentary, ill-defined or entirely lacking and the bacterial invasion is unchecked, deep and widespread. This is a group which furnishes the fatal cases.

Sixth. The logical conclusions drawn from the clinical experience based upon a more enlightened bacteriological and histological differentiation of cases demonstrate, first, that in the purely

saprophytic type in which a differential granulation zone exists, interference beyond the removal of placental or other necrotic debris is unnecessary. In this class of cases, therefore, the use of the sharp curette, or other cutting instrument, is not only superfluous but dangerous, because it destroys nature's defensive barrier and opens up new avenues of infection, second, in the streptococcal or true septic type, which constitutes about 25 per cent., there is no protective granulation and the infection is too deep and widespread to be reached by the curette.

Seventh. In consequence of these facts it is evident that the surgical interference must be limited to the removal of dead placental and fetal debris or other necrotic matter by the finger or such agent that will accomplish their purpose without undue traumatism to the endometrium and the opening up of new avenues of infection.

Eighth. In a few cases in which the streptococcal nature of infection is clearly established at an early stage and when it is evident that it is limited to the uterine body, the propriety of total hysterectomy may be considered. In the vast majority of cases, however, the condition of the patient and the diffusion of the infection beyond the uterine body precludes a resort to this procedure and will limit the intervention to Pryor's method of colpotomy and pelvic drainage with such systemic measures as may be indicated to dilute the toxin and facilitate their elimination. In addition, all recognized methods of supportive treatment by which the defenses of the organism may be strengthened should be applied.

Ninth. The essential conclusion to be borne in mind is that the safety of the parturient woman lies in the conscientious and scrupulous observance of the laws of asepsis rigorously applied before, during and after parturition, with a greater insistence upon the mechanical and surgical cleanliness or true aseptic method as distinguished from too great a reliance upon chemical antisepsis, which has characterized the practice of the past and still unfortunately prevails among the uninitiated who are unfamiliar with the modern surgical methods.

DISCUSSION.

DR. MATAS said that he was gratified at the opportunity of having heard so valuable and interesting a paper as that just presented by Dr. Clark. The subject discussed was of perennial interest to the practitioner. The presentation of the subject in its latest and modern phases was most opportune; as it was evident, that notwithstanding all that had been said and written on the subject, the heavy mortality still existing in private practice from avoidable causes of infection in child-bed showed that there was a woeful neglect of duty somewhere. The disproportion in the prevalence and mortality of puerperal infection between institutional and private practice as brought out by Dr. Clark was not exaggerated, as every practitioner of experience knew. While this could be accounted for by the ignorance of untrained midwives, nurses and others who attended the poor, there was still a grave responsibility for much of this mortality that the profession itself had to account for. Much ignorance still prevailed in many quarters, in spite of better teaching, as to the nature of the infection and its mode of transmission. The old idea that made no difference between the various distinct types of infection but regarded puerperal fever as the result of a single cause, still prevailed and accounted for much of the contradictory and confusing results of individual experience in the treatment of this condition. With a clearer insight into the pathology and a more frequent application of bacteriological methods of investigation, a better clinical differentiation of cases would follow and with this a better appreciation of the therapeutic indications and the prognosis.

Probably the most debatable proposition presented by the reader referred to the use, or rather, abuse of the curette. A few years ago, the position held by the author would have been assailed by a host of disputants; but in the last few years the pendulum of professional opinion has swung to the moderate and thoroughly conservative view presented in the paper. The speaker's personal experience was in entire harmony with every one of the propositions advanced by Dr. Clark.

He emphasized his condemnation of the *sharp* curette or other instrument which injured the endometrium and destroyed the natural defensive barriers against infection. He believed in the

thorough evacuation of the uterus; he believed in the systematic removal of necrotic placental debris and adherent membranes; this was a fundamental principle. But for this purpose nothing could compare with the trained finger and clean hand of the accoucheur, aided perhaps after digital exploration, by some innocent instrument of which none better, in his experience, than the long Sims' uterine sponge-holder which was incapable of harm and was most efficient in dislodging and extracting adherent fragments, especially in cases of abortion in which the free use of the finger was restricted by a comparatively narrow cervix. As an additional aid to thoroughness, the scrubbing of the endometrium with an iodoform gauze mop soaked in peroxide and held in the bite of a blunt forceps, was most effective and made the use of even a blunt curette unnecessary.

One of the greatest lessons learned in the course of his experience was the need of a greater insistence upon the mechanical cleansing of the hands and less reliance on chemical antiseptics which was only an adjunct to the first.

Much could be said of the surgical procedures and systemic remedies which had been recently recommended and applied in the treatment of the more progressive, disseminated, infections which furnish the fatal cases, but Dr. Clark had limited his discussion chiefly to the pathology of septic metritis and the place of the curette in its treatment.

The keynote of the whole discussion as presented by the reader was *prophylaxis*; "unceasing vigilance in maintaining asepsis before, during and after delivery" as the only safeguard of the parturient woman.

DR. PARHAM said that he was very highly entertained by the paper just read and that little criticism could be offered, the status of the question having been so correctly stated. When he was Assistant Surgeon at the Charity Hospital the mortality had been reduced from 10 per cent. from avoidable causes to less than 1 per cent. through the inauguration of clean and antiseptic methods. At that time when attention was first being directed to the correction of unsatisfactory procedures he remembers that it was frequently the case that the same syringe was employed in douching a number of delivered cases. This experience recalled

that of Semmelweiss when struggling with puerperal sepsis and the improvement that followed showed the value of the antiseptic method. This faith in the antiseptic method had been so great that one Viennese obstetrician had gone so far as to say that he felt perfectly safe in going directly from an infectious case and deliver a woman, after having immersed his hands in a bichloride solution. There had been a reaction against antiseptic methods, and there was a general agreement that treatment must be prophylactic, that is, aseptic rather than germicidal. Chemicals employed in these cases lowered the resistance of the parts and thereby actually increased the chances of infection in many cases. It was his practice after having cleansed the external genitals to employ an ante-partum douche, aseptic or weakly antiseptic in character, not being able in all cases to tell from the physical signs whether the vaginal tract contained pathological secretions or normal. He thought that the rubber glove was an immense advantage in this class of cases and should be used more frequently than they are. He agreed with the essayist as to the advantage of gloves, that when the glove becomes contaminated it is so much safer to withdraw the glove and substitute another, than to rely upon the sterilization of the hand. He thought that one pair of gloves would, however, usually suffice, because it was scarcely required to employ more than one hand at a time in the parts, and the two gloves could be used for the same hand. He thought the Society was to be congratulated on having had the subject so thoroughly considered by the essayist.

DR. MILLER said that the microscope was becoming indispensable in the treatment of puerperal infection. It revealed conditions which we hope to be able to some day recognize from the clinical manifestations. We are now able to often determine the nature of the infecting agent by local inspection, together with the general constitutional disturbances, at least learn enough to prevent methods of treatment being adopted that are positively dangerous in some forms of infection. The curette is generally acknowledged to be a dangerous instrument and its field in puerperal infection is rapidly growing smaller. It is never indicated when streptococcic infection is present. In some cases of early abortion it is sometimes necessary to use it. For irrigation of the uterus hot normal

salt solutions in large quantities is best. It should be used before an attempt is made to clean the uterus with the finger or curette, and after it is emptied. Too much stress can not be placed on knowing the point of entrance of the infection. Suspicion of infection is enough to prompt a thorough examination of the whole tract, the woman being placed on a table before a good light. Palpation of the pelvic organs from day to day will reveal any trouble localizing in the pelvis beyond the uterus and will permit the drainage of pus collections that are often allowed to keep up temperature and systemic poisoning for days or weeks. Hysterectomy was being done by some men of good judgment and their results justified them, but it is an operation too dangerous to be generally recommended. It is too difficult to select the cases for such an operation. It would often be performed unnecessarily. Hirst's report of cases in which he successfully resected portions of the gangrenous uterus, removed suppurating foci in tubes, ovaries, etc., strongly suggests the abdominal route in dealing with septic conditions perceptible outside of the uterus.

DR. LEMANN thought that Williams had aptly said regarding hysterectomy in puerperal sepsis that if done early it was done too early, and if done later it was done too late. That is to say if the hysterectomy was performed while the infection was confined to the uterus it was done too soon for it was then still possible to save the patient her uterus as well as her life, while if the operation was performed after the infection had gone beyond the uterus the operation would be futile. In the treatment of early abortions he was of the opinion that we had been too prone to the use of the curette. Not all of these abortions were incomplete and should not be so regarded. If they were complete, curettement would no more be indicated than after a normal delivery at term. Even when the abortion was incomplete and the woman still losing, he had found in his clinic that in many cases all that was necessary was the administration of ergot with perhaps packing the cervix according to the advice of Williams. Of course this treatment could be employed only where no infection existed and for twenty-four hours at the longest. When it was necessary to interfere surgically in order to completely empty the uterus we should use the finger if possible, but in many cases this would be impossible and the use of the curette would then be imperative.

DR. GESSNER in speaking of the frequency of this disease said that in his practice, which was not specially directed to this class of cases, he had treated last winter three such cases; he thought that it occurred far too frequently. He thought the prognosis was bad; only one of his three cases of last winter recovered. As to the causation he believed that the giving of douches by ignorant women under orders of physicians often infected cases that would otherwise escape contamination if let alone. As to treatment, he thought an ice-bag on the lower abdomen, with copious hot vaginal douches, made the patient more comfortable and contributed in a measure to her recovery. Finally he thought the use of antistreptococcic serum, while followed by no good results so far, should be persisted in, especially in cases shown by bacteriologic examination to be due to streptococcic infection.

DR. BATCHELOR stated that the ground had been so thoroughly gone over that he thought he could add but little to the discussion. In regard to the use of the curette, he mentioned that he had abandoned its use several years past, having arrived at this conclusion from actual observations made in the wards of the Charity Hospital. He believed it was a dangerous instrument, often converting innocent cases into malignant ones. He had never found a case in which the finger could not be used as an exploring agent. In some cases of early abortion when clearing the uterus of retained matter, he used his finger to locate and outline the mass, then a dull curette would free the debris from its attachment. He was convinced that the virulence of the case depended upon the type of the infection and that treatment should be based upon a more accurate diagnosis than had heretofore been the case. Referring to hysterectomy he quite agreed with the remarks of Dr. Lemann, the great difficulty being to tell what cases were suitable for the adoption of this procedure. In a recent case in the Hospital he had seriously debated the question of hysterectomy, but his better judgment prevailed and the woman recovered without having to undergo so taxing an ordeal. Hysterectomy, he thought, was rarely ever justified.

DR. J. F. OECHSNER wished to emphasize the matter of prophylaxis in Dr. Clark's paper, saying that this could not be too strongly impressed upon the average physician. He was convinced

that in general practice it was a procedure too trivially considered. Material, such as sheets, towels, etc., which came in contact with the person should always be sterilized. In the humblest homes this procedure could be carried out. It has been his practice recently to send to one of our city sanitariums for sterilized gowns, sheets, towels, etc. These were wrapped in bichloride manila paper and therefore did not suffer in transit. It would be well if this custom could be more generally adopted as the cost for the use of this material, \$1.50 to \$2.00, is comparatively trivial. The hands should be made thoroughly aseptic by means of vigorous scrubbing with green soap and brush, and as mentioned in the original paper, not too much dependence placed upon antiseptics. As an evidence of the lack of the above precautions by some physicians, he had heard it reported that temperatures of 101° and 102° was the rule in their obstetrical practice. Further investigations showed that very little, if any, precautions against infection had been practiced.

DR. WALET said that he was thoroughly in accord with the points urged in the paper and felt that little could be said on the question, but that he wished to specially emphasize one point, that of irrigating the vaginal tract in cases having old hypertrophied cervix and where any tear around the uterine os, thereby lessening the chances of infection from these sources.

DR. E. D. MARTIN stated that as a rule he did not employ douching in normal cases of delivery, but wherever there was a tear or laceration of any part of the vaginal tract, believing as he did, that from these tears the uterine cavity was frequently infected, he always employed a copious irrigation of the vaginal tract with an antiseptic solution. It was his opinion that a fever coming on two or three days after delivery was in some cases to be accounted for by the establishment of lactation, and it would be a serious error to wash the uterus under such circumstances, through a mistaken diagnosis.

DR PERKINS believed that whenever the onrush of the milk was accompanied by fever as high as 101° preceded by a chill, it was time to administer an antiseptic uterine douche. He urged that post-partum vaginal douches, when needed, be not left to midwives or other careless people. There was too much carelessness

among the profession in regard to obstetrical asepsis. The young practitioner was assailed on every side by protests from patients and physicians against the details necessary to asepsis. The patients often insist that former children have been born without such elaborate preliminaries and that other physicians have not insisted upon them. Not only the young physicians, but the older practitioners quite often yield to the pressure from financial and politic reasons. Not one practitioner in ten is thoroughly aseptic. Many are willing to make elaborate preparations, but few are willing to be consistently and carefully aseptic throughout a long labor case. Two human lives are involved in a case of labor, and no man has a right to assume such responsibilities unless he is willing and qualified to maintain throughout a thoroughly aseptic technic, carefully, consistently and consciously. In placing the responsibility for puerperal septicemia we should consider not only the staphylococcus, streptococcus, the colon bacillus and the gonococcus—but also the doctor. The Society was indebted to Dr. Clark for bringing such a live subject before them for discussion.

DR. CLARK, in closing the discussion, said that he was gratified in seeing the subject of his paper so freely discussed and would feel amply repaid for the work in the preparation of his remarks if but a few members went from this meeting thoroughly convinced of the importance of prophylaxis and the great abuse of the sharp curette. Several members had discussed the propriety of hysterectomy in these cases, but this had been purposely avoided because it was believed that the consideration of this important phase of the question was of such a breadth that to fully consider it an entire evening of the Society would have to be devoted thereto. Some members seemed to forget that he had advocated the use of the dull curette and Sims sponge holder for cleansing the interior of the uterus when the finger could not be used. In regard to Dr. Parham's remarks in reference to using ante-partum douches, that though he thought the use of a douche in the hands of one so aseptic as Dr. Parham little damage would be expected, still its adoption as a routine practice in the hands of the rank and file of the profession, he thought an unwise procedure. As for the onrush of milk producing high fevers as mentioned by Dr. Martin,

he was convinced that for one to be prone to look upon these supposed causes for fever was a very bad practice, and it seemed to him that Dr. Perkin's remarks upon the advisability of douching the interior of the uterus in these supposed breast cases was a most wise precaution.

DR. PARHAM begged to interrupt, as Dr. Clark was closing the discussion, to say that while cleansing the external genitals with soap and water should never be omitted, he believed that mechanical cleansing of the vagina with aseptic or weak antiseptic solutions would frequently be found to add to the safety of the patient. Such cases as those related by Dr. Walet of actual vaginal or cervical diseases, with discharge, emphasized the necessity of this original douching in certain cases and the natural uncleanness of some women would make it often advisable. These cases were difficult to select without a visual examination through a speculum, which would not always be practicable.

DR. PHILIP ASHER read a paper on

Antidotal Effects of Alcohol, Glycerin, etc., Upon Carbolic Acid: Are They Chemical or Physical?

At a previous session of this Society, the question arose; "upon what special characteristics do the antidotal properties of alcohol, glycerin, etc., depend?"

By some they were considered purely physical, whilst by others as chemical.

To prove these assertions either pro or con, the writer undertook quite a number of experiments, but mention will be made only of such that have special bearing upon this subject. In experiment number one, just sufficient alcohol was added to the carbolic acid, that when the mixture was reduced to zero centigrade, crystallization was prevented. A drop of this when placed upon the skin produced an eschar within one minute, whilst a mixture of equal volumes of carbolic acid and alcohol did not produce any escharotic results whatsoever.

The carbolic acid used in these experiments had a boiling point between 179 and 180° centigrade (354.2—356° F), and a melting point at 35° c (95° F).

In experiment number two, equal volumes of the acid and alcohol were placed into a distilling flask and distilled. Boiling began at 80° centigrade, (about the boiling point of alcohol). When the alcohol was entirely removed the residue showed a melting point of 35° centigrade. The results of this experiment show that the carbolic acid and alcohol were only in a state of mixture, as it is almost wholly impossible to have had chemical union without some change in the physical properties of either one or all the factors and which in the case of both the acid and the alcohol were unaltered.

A point was raised by the supporters of the chemical theory that the special antidotal effects of alcohol towards carbolic acid resided in the fact of the acid being chemically an alcohol, the truth, however, of it belonging to an entirely distinctive class of alcohols being wholly disregarded, although neither the former nor latter points should have any special bearing upon the antidotal properties.

As the next experiment depends largely upon the question of solubility, a few considerations of the solubility of carbolic acid and glycerin will add to its importance.

Carbolic acid is very soluble in alcohol, ether and glycerin, whereas glycerin is insoluble in ether.

In experiment number three, equal volumes of glycerin and carbolic acid were used; perfect solution resulted, but upon the addition of three volumes of ether, the glycerin was completely thrown out.

If chemical union had taken place between the glycerin and acid, it could certainly not have been so readily broken up by the simple addition of ether and we all know that chemical change is accompanied by a rise of temperature, which was absent in this experiment.

The ethereal solution from the above experiment had a boiling point of 38° c (100.4° F.) and the residue after separation of the ether which consisted of carbolic acid, a melting point of 35° centigrade, whilst its boiling point was the same as the acid originally used.

The factors in this experiment as in that of number two were

unaffected in any of its properties and which again strengthens the proof that the above result and changes were purely physical.

Thus far mention has been made of carbolic acid, also known as phenol, which is a mon-atomic alcohol belonging to the aromatic series and having as its base the radical ($C_6 H_5$), known as phenyl. Common or ethyl alcohol is also a mon-atomic alcohol, but of a different class than the former. It is the second alcohol of the paraffins. This formula is $(C_2 H_5)OH$, the base or radical called "Ethyl."

Glycerin is entirely different from either of the above, whilst it is classified under the same list as ethyl alcohol, it differs from it by being tri-atomic, that is containing three (O H) radicals, whereas both the carbolic and ethyl alcohol contain only one. The formula is $C_3 H_5 (OH)_3$.

Another alcohol also possessing antiseptic properties but somewhat milder than that of phenol is resorcin. It is an aromatic alcohol, but of the di-atomic type, that it contains two (O H) radicals. It is known chemically as meta-di-oxy benzol. Its formula is $C_6 H_4 (OH)_2$.

Equal parts by weight of resorcin and phenol form a perfect solution, but this solution is not wholly void of escharotic effects.

This mixture possessed a boiling point in the vicinity of 195° centigrade (383° F) and the first portion of the distillate, consisting of carbolic acid, melted at 35° centigrade. The residue had a melting point above 115° C (239° F) and corresponding to properties of resorcin.

From the foregoing experiments the following facts must be summarized:

Firstly the physical or chemical properties of the various factors used were never affected and consequently chemical change never occurred.

Secondly. The antidotal power possessed by alcohol and glycerin depends largely upon its state of dilution. We well know a drop of sulphuric acid will produce escharotic properties at once, while the same quantity of the acid in a diluted state has no such tendency, which is evidenced by the frequent administration of the acid internally in a host of diseases. In addition to that of dilution, alcohol possesses dehydrating and astringent properties preventing absorption of the acid by the tissues.

DISCUSSION.

DR. PERKINS was especially impressed with the value of experiment No. 2, which appeared to be a convincing proof that the alcohol and carbolic acid did not form a chemical compound, but merely a chemical mixture. As one of those who had upheld the theory that the effect was chemical he acknowledged defeat, as he had no counter argument to suggest. Dr. Asher had taken the most effective means to uphold his side of the question.

It was moved by Dr. Gessner and seconded by Dr. Perkins that a vote of thanks be tendered Dr. Asher by the Society for the interesting original researches that he had conducted in reference to the settlement of a much debated question.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Barber Shop Again.

At a meeting of the New Orleans City Board of Health held September 8, the Chairman, Dr. Quitman Kohnke, presented the regulations as adopted in New York governing barber shops and suggested that an ordinance be drafted covering the same grounds.

The proposed rules follow:

“Barbers must wash hands thoroughly with soap and hot water before attending any person.

“No alum or other astringent shall be used in stick form. If used at all to stop flow of blood, it must be applied in powder form.

“The use of powder puffs is prohibited.

“No towel shall be used for more than one person without being washed. The use of sponges is prohibited.

“Mugs and shaving brushes shall be thoroughly washed after use on each person.

“Combs, razors, clippers and scissors shall be thoroughly cleansed by dipping in boiling water, or other germicide, after every separate use thereof

“No barber, unless he is a licensed physician, shall prescribe for any skin disease.

“Floors must be swept or mopped every day and all furniture and woodwork kept free from dust.

“Hot and cold water must be provided.

“A copy of these regulations is to be hung in a conspicuous place in each shop.”

All of which is highly to be desired but, in spite of which, little real good is going to result because the chief evil of the barber shop is not even mentioned—The hair brush.

The whole purpose of barber shop sanitary rules aims at preventing disease. The diseases which lead from the barber shop

are parasitic and other contagious diseases. Ringworm, folliculitis, syphilis and seborrheic dermatitis are the most important of these; syphilis is rare; ringworm (barber's itch) not common; folliculitis rather common, while nine-tenths of the frequenters of barber shops are afflicted with seborrheic dermatitis, commonly called "dandruff." The scalp is the breeding place and from that the face and body are infected. The hairbrush is the constant vehicle of contagion. Fully 25 per cent. of skin affections are chiefly traceable to dandruff, including even types of cancer.

Every stroke of the common hairbrush in the barber shop spreads the contagion and the stroke of such a hairbrush adds more to the prevalence of disease than do all the evils catalogued in the whole list of provisions embodied in the rules set forth above.

Unna, Elliott, Merrill, Malassez and Sabouraud have found the several specific organisms, and the accepted relation of dandruff to baldness makes the hairbrush a common enemy. After all, the barber uses this instrument of his trade cosmetically and not essentially, so we would suggest and urge the additional rule to be embodied in the proposed ordinance that:—

"There shall be no hairbrushes of any kind in the shop."

Pure Food and Drugs.

The recent cases of poisoning from impure milk in this city, and the agitation resulting altogether point once more to the lack of protection in Louisiana against the wilful adulteration of food. Our local Board of Health has exercised reasonable supervision of certain articles of food, milk among these; their inspection of meat is proverbially excellent; but there is yet room for improvement.

The organization of boards of health may be broad in its purposes, but, unfortunately, it grows narrow in its practice. Aside from the direct relation of conditions of disease, a fair provision for vital statistics, some supervision over supplies of oil and selected articles of food, the work of the board usually is limited.

Ohio has a separate commission, with an active function directed at the prosecution of food adulteration. Its office goes so far as to regulate the concoction of patent medicines and to prevent the sale of injurious compounds.

The public for a very long time has resented interference with its privileges, prerogatives with many, in the matter of purchasing drugs and medicines, plain and in compounds, holding much of the same opinion regarding these as with food supplies. Gradually, however, an educational movement has taken place and to-day the occasional fatality leads to a more rational view of these things. We have only to point to the license afforded to a whole list of alcoholic patent medicines to show wherein reform is needed.

Boards of health are political bodies largely, but composed, as a rule, of men more free of sordid motive than other political appointees and to them the necessity for reform should appeal, and through them the recommendation for further power should come.

In recent years the Louisiana State Legislature has recognized the need for regulating the sale of poisons and though hardly yet in full operation, the law is in effect acting somewhat as a restraint on the wholesale cocain and morphin dispensing formerly common; violators have even been punished under this law.

It needs only a thorough appreciation of the evils and a systematic presentation of these to the public to have some response in legislative action.

To-day the average drugstore is full of nostrums, many of which could be legislated against, if only the initiative were taken.

Every now and then, some little public excitement is created through the daily papers as has occurred with the recent tyrotoxicon and formaldehyde milk poisoning cases in New Orleans; but they are soon forgotten, until a like accident again stirs a popular interest.

Human life is a public trust and it is a far better principle to safeguard it by preventive measures of legislation than to avenge it by no matter how severe punitive procedures after it has been sacrificed.

Justice.

In referring last month to the discovery of a parasite in the bodies of mosquitoes infected from yellow fever patients, we stated that proper credit had not been given in the report of the Working Party of the Public Health and Marine Hospital Service; also that the Surgeon General of that service was in possession of the

information and that one of the Party had protested against the improper recognition.

As nothing further has publicly eventuated, we now propose to give the facts of the case, without argument, without animus against or favor to any one, simply that justice may be done to a scientific observer and worker of this city. In this, as in other and larger things the JOURNAL always stands for justice "though the heavens may fall."

The first person to have interpreted correctly and given value to what was found in the bodies of mosquitoes, infected from yellow fever subjects, brought from Vera Cruz by the Working Party was Mr. J. C. Smith, of New Orleans, a member of the American Microscopical Society for ten years and an officer of that body, also a member of the Association for the Advancement of Science, who has been a student of zoology for thirty years and has published many papers on protozoa.

His assistance was solicited by the biologist of the party who had found only "granular bodies" in the salivary glands of the mosquitoes. These bodies were not "granular," but linear, several times longer than wide, and turned out to be the sporozoites. Mr. Smith reported finding the parasite, sketched all the process of development, and demonstrated it to the Party.

It was agreed that Mr. Smith was to be given full recognition for his services in the text of the report treating of the parasite. When the report was submitted for approval to the Party at its final meeting, the recognition was inserted only after the refusal of Dr. Pothier to sign the report without it. We rejoice that the doctor had the manliness to insist as far as lay in his power that justice be done. When the report was finally presented to the Surgeon General, *the recognition had been suppressed.*

The Surgeon General was apprised of this "retention and suppression" before the report was issued and knew what had been promised to Mr. Smith. He knew that the following statement was acceptable to him: "The Commission is indebted to Mr. J. C. Smith, of New Orleans, for his *valuable services in working out the sexual life-history of the parasite in the body of the mosquito*, this acknowledgement to be included *in the body of the report*, as part of the section entitled the "Contaminated *Stegomyia fasciata* and its Parasite."

Instead, the only mention of Mr. Smith's valuable work, that which made the expedition fruitful, which did come out is in the following sentence: "In the proper study and classification of this new parasite the Working Party desires to *express its thanks to Mr. J. C. Smith, of New Orleans, for valuable aid and suggestions in working out the life-history of the organism;*" this was included in the letter of transmittal, printed in front of the report proper, as a preface it might be said.

A comparison of the italics (ours) in both sentences will show the difference.

We merely wish to add that all the above statements can be proved.

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary, 163 University Place,
New Orleans.

NEXT MEETING, LAFAYETTE, LA., MAY 3, 4, 5, 1904.

OFFICERS—President, Dr. J. M. Barrier, Delhi; 1st Vice President, Dr. L. G. LeBeuf, New Orleans; 2nd Vice President, Dr. F. J. Mayer, Scott; 3rd Vice President, Dr. Oscar Dowling, Shreveport; Secretary, Dr. Wm. M. Perkins, New Orleans, Treasurer, Dr. M. H. McGuire, New Orleans.

COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St Charles St., New Orleans; S. L. Williams, Sec'y, 5th Cong. Dist., Oak Ridge; J. F. Buquol, 1st Cong. Dist., Point-a-la-Hache; F. R. Tolson, 3d Cong. Dist., Lafayette; N. K. Vance, 4th Cong. Dist., Shreveport; C. M. Sitman, 6th Cong. Dist., Greensburg; C. A. Gardiner, 7th Cong. Dist., Bristol.

Chairman Committee on Arrangements, Dr. F. J. Mayer, Scott, La.

PARISH ORGANIZATION.—The following parishes are getting ready to organize: Terrebonne, Caddo (in October), Ouachita, Bossier, Franklin, West Baton Rouge.

THE TRI-PARISH MEDICAL SOCIETY (Claiborne, Webster and Bienville) expects to affiliate. The Bi-Parish Medical Society (Red River and Natchitoches) organized September 15, and will affiliate.

THE FIRST CHARTER has been issued to the Richland Parish Medical Society, as they were the first to fulfill all requirements.

VERNON PARISH MEDICAL SOCIETY has now a membership of 14, which includes every eligible physician in the Parish except one. They meet quarterly on the first Wednesday of January, April, July and October. They are keeping up a very active organization.

THE RICHLAND PARISH MEDICAL SOCIETY has been chartered as the first Component Society. The following are the Charter Members: Drs. D. R. Sartor, Alto (Pres.); H. B. Wren, Rayville (Vice Pres.); R. F. Wilkins, Rayville, (Secty.-Treas.); J. M. Barrier, Delhi; W. P. Washington, Alto; C. G. Snyder, Alto; Nash Collins, Delhi; J. E. Thompson, Delhi. They have adopted, with almost no amendments, the Constitution and By-Laws suggested by the State Society and will meet quarterly.

THE PHYSICIANS OF FRANKLIN PARISH were to meet at Winsboro on September 24, to organize a Parish Society. Dr. Barrier was expected to be present.

DR. C. A. GARDINER, Councillor from the Seventh District, sends encouraging news of interest shown in that section. He expects several parishes to organize shortly.

CORRECTIONS TO NOTES IN SEPTEMBER JOURNAL.—Dr. J. M. Middleton, Secretary Sabine Parish Medical Society, lives at Many. The Secretary-Treasurer of the Richland Parish Medical Society is Dr. R. F. Wilkins, of Rayville.

THE STATE BOARD OF MEDICAL EXAMINERS has secured an injunction against "Dr." D. O. Holmes, 1306 Magazine street, New Orleans. This Department is informed that the State Board will willingly take up the case of any illegal practitioner in Louisiana if sufficient evidence of illegal practice is available.

THE TREASURER INFORMS US THAT ABOUT THIRTY MEMBERS are still delinquent for two years' dues and will therefore be dropped after two official notices. *No physician can afford to be dropped* from the rolls of his State organization for non-payment of dues, no matter how indifferent he may be to the benefits of membership. We are sure that most of these members have unintentionally allowed their status to become impaired and hope we will not have to drop them.

ADDRESSES CHANGED.—Dr. C. C. Allums, from Polk to Manning, Bienville Parish; Dr. J. F. Buquoi, from Pointe-a-la-Hache to Colomb P. O., St. James Parish; Dr. C. F. Howell, from Walls to Kinder, Calcasieu Parish; Dr. L. N. Keller, from Jackson to McManus, East Feliciana Parish; Dr. D. J. McAnn, from Knox Point to Athens, Bossier Parish; Dr. I. R. Young, from Lindsay to Zachary, East Baton Rouge Parish; Dr. J. O. St. Dizier, from Fordoche to Walls P. O., West Baton Rouge.

THE EXECUTIVE COMMITTEE has decided that new members received through component Societies will begin to pay dues January 1, 1904. As a special inducement to immediate organization and affiliation the Society offers the following: To every new member joining through a component society and paying in advance \$3.00 for dues up to January 1, 1905, the Society's official organ, the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, will be sent for the rest of 1903 and the whole of 1904. New members are urged to take advantage of this offer, as they thus secure the Journal for the rest of this year free.

THE PRESIDENT HAS APPOINTED THE FOLLOWING OFFICERS OF SECTIONS:

General Medicine.—Chairman, Dr. W. G. Owen, White Castle. To open discussion, Dr. J. B. Elliott, Jr., New Orleans; Dr. G. W. Gaines, Milliken's Bend.

Surgery.—Chairman, Dr. H. B. Gessner, New Orleans. To open discussion, Dr. C. W. Hilton, Monroe; Dr. J. B. Guthrie, New Orleans.

Neurology.—Chairman, Dr. I. M. Callaway, Shreveport. To open discussion, Dr. W. E. Kittredge, Jackson; Dr. L. L. Cazenavette, New Orleans.

Materia Medica and Therapeutics.—Chairman, Dr. R. E. McBride, Houma. To open discussion, Dr. Nash Collins, Delhi; Dr. J. C. Willis, Homer.

Disease of Children.—Chairman, Dr. Charles McVea, Baton Rouge. To open discussion, Dr. C. J. Grémillion, Alexandria; Dr. E. D. Fenner, New Orleans.

Obstetrics.—Chairman, Dr. H. A. King, New Iberia. To open discussion, Dr. W. D. Roussel, Patterson; Dr. A. C. King, New Orleans.

Gynecology.—Chairman, Dr. S. M. D. Clark, New Orleans. To open discussion, Dr. Isaac Ivan Lemann, New Orleans; Dr. Louis Perrilliat, New Orleans.

Genito-Urinary Diseases.—Chairman, Dr. Randell Hunt, Shreveport. To open discussion, Dr. H. F. Wilkins, Rayville; Dr. Jules Lazard, New Orleans.

Dermatology.—Chairman, Dr. H. E. Ménage, New Orleans. To open discussion, Dr. F. M. Thornhill, Arcadia; Dr. Isadore Dyer, New Orleans.

Ophthalmology.—Chairman, Dr. R. F. Harrell, Ruston. To open discussion, Drs. H. D. Bruns and M. Feingold, New Orleans.

Otology.—Chairman, Dr. F. E. Girard, Lafayette. To open discussion, Dr. G. Surghnor, Monroe; Dr. Homer Dupuy, New Orleans.

Medical Jurisprudence.—Chairman, Dr. E. L. McGehee, New Orleans. To open discussion, Dr. R. L. Randolph, Alexandria; Dr. M. L. Hoffpauir, Crowley.

Quarantine.—Chairman, Dr. J. N. Thomas, Quarantine Station. To open discussion, Dr. C. J. Ducoté, Cottonport; Dr. Quitman Kohnke, New Orleans.

Bacteriology.—Chairman, Dr. P. E. Archinard, New Orleans. To open discussion, Dr. O. L. Pothier, New Orleans.

Anatomy and Physiology.—Chairman, Dr. S. P. Delaup, New Orleans. To open discussion, Dr. A. F. Barrow, St. Francisville; Dr. H. Bayon, New Orleans.

Sanitary Science.—Chairman, Dr. S. L. Théard, New Orleans. To open discussion, Dr. G. C. Mouton, Lafayette; Dr. A. A. Allain, Bayou Goula.

Oral Surgery.—Chairman, Dr. G. J. Friedrichs, New Orleans. To open discussion, Drs. A. G. Friedrichs and E. D. Martin, New Orleans.

THE PRESIDENT HAS APPOINTED THE FOLLOWING ON THE NATIONAL AUXILIARY AND LEGISLATIVE COMMITTEE created by the Committee on Legislation of the A. M. A.: Acadia, Dr. M. L. Hoffpauir; Ascension, Dr. A. A. Aucoin; Avoyelles, Dr. D. B. Davis; Bienville, Dr. N. A. Culbertson; Bossier, Dr. C. H. Irion; Caddo, Dr. F. J. Frater; Calcasieu, Dr. V. A. Miller; Caldwell, no representative; Cameron, no representative; Catahoula, Dr. T.

M. Butler; Claiborne, Dr. C. A. Bailey; Concordia, Dr. M. C. Reeves; De Soto, Dr. E. Davies; East Baton Rouge, Dr. I. T. Young; East Carroll, Dr. F. R. Bernard; East Feliciana, Dr. E. C. McKowen; Franklin, Dr. C. L. Ramage; Grant, Dr. T. J. Harrison; Iberia, Dr. J. G. Bouvier; Iberville, Dr. O. G. Browne; Jackson, Dr. A. E. Simonton; Jefferson, Dr. Chas. P. Gelbke; Lafayette, Dr. A. R. Trahan; Lafourche, Dr. Thomas Stark; Lincoln, Dr. S. A. Poole; Livingston, no representative; Madison, Dr. J. O. Sterger; Morehouse, Dr. O. M. Patterson; Natchitoches, J. S. Stephens; Orleans, Dr. Edmond Souchon; Ouachita, Dr. L. C. George; Plaquemines, Dr. H. L. Ballowe; Pointe Coupée, Dr. L. M. Provosty; Rapides, Dr. J. I. Wilson; Red River, Dr. C. E. Edgerton; Richland, Dr. H. B. Wren; Sabine, Dr. J. M. Middleton; St. Bernard, no representative; St. Charles, Dr. J. A. Estopinal; St. Helena, Dr. E. O. Powers; St. James, Dr. L. A. Gaudin; St. John-the-Baptist, Dr. L. D. Chauff; St. Landry, Dr. L. B. Arceaux; St. Martin, Dr. A. Guilbeau; St. Mary, Dr. S. J. Gates; St. Tammany, Dr. J. F. Pigott; Tangipahoa, Dr. R. F. Stone; Tensas, Dr. M. R. Purnell; Terrebonne, Dr. C. Menville; Union, no representative; Vermillion, Dr. J. T. Abshire; Vernon, Dr. M. R. McAlpin; Washington, no representative; Webster, Dr. L. Longino; West Baton Rouge, Dr. F. R. Carruth; West Carroll, Dr. T. W. Pulley; West Feliciana, Dr. J. M. Daniel; Winn, Dr. J. J. Peters.

THE PRESIDENT, DR. J. M. BARRIER, met a number of the New Orleans members of the State Society on September 22, at the rooms of the Orleans Parish Medical Society. He urged the local Society to secure its charter from the State body, and related the good work so far accomplished in Parish organization. He proposed visiting different sections of the State during October for the purpose of stimulating more organization and to create a fine attendance at Lafayette next year.

Medical News Items.

THE AMERICAN PUBLIC HEALTH ASSOCIATION WILL MEET in Washington, D. C., October 26, 27, 28, 29, 30, 1903.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION is to hold its 29th annual meeting at Memphis, Tennessee, October 7, 8, 9, 1903. An excellent program has been arranged and the local profession promise adequate entertainment. A large attendance is expected and the Southern States should be well represented. A rate of one and one-third fare on the certificate plan will be in force.

TYPHOID FEVER is among the reportable diseases in New Orleans and the Board of Health has circularized the profession with the view of getting at the early cases.

"THE DISEASES OF SOCIETY," is the title of a work soon to issue from the pen of Dr. G. Frank Lydston.

THE NATIONAL DENTAL ASSOCIATION at the recent Asheville meeting adopted the following resolution: "That it is the sense of the National Dental Association that each Medical College in the United States should include in its curriculum a lectureship on "Oral Hygiene, Prophylaxis, and Dental Pathology."

REED MEMORIAL.—A number of representative medical men met at Bar Harbor, Maine, on August 15, and materialized a plan to memorialize the work of the late Major Reed in yellow fever research.

The following conclusions were reached: That an effort should be made to raise a memorial fund of \$25,000 or more, the income to be given to the widow and daughter of Dr. Reed, and after their decease the principal to be appropriated either to the promotion of researches in Dr. Reed's special field, or to the erection of a memorial in his honor at Washington.^b

Arrangements were made for the publication of circulars explaining this movement, and asking co-operation not only from the medical profession, but from all liberally disposed individuals who appreciate the value of Dr. Reed's services to mankind.

Publications Received.

D. Appleton & Co., New York, 1903.

Diseases of the Rectum, Anus and Sigmoid Flexures, by Jos. H. Matthews, M. D.

General Catalogue of Publications, January, 1903.

Gynecology, by William R. Pryor, M. D.

Miscellaneous.

Transactions of the Southern Surgical and Gynecological Association, Volume XV. Edited by W. D. Haggard, M. D., Published by the Association, 1903.

Catalogue of the University of Texas, 1902-3.

Report of Working Party No. 1, Yellow Fever Institute—A study of the Etiology of Yellow Fever, by Drs. Herman B. Parker, George E. Beyer, O. L. Pothier, March, 1903.

La Peste Bubonica, by Dr. Enrique B. Barnet, Havana Cuba, 1903.

Bulletins 11 and 13, M. J. Rosenau, Director, February and May, 1903. Government Printing Office, Washington.

Transactions of the Tennessee State Medical Association, 1903.

Reprints.

The Value of the Roentgen Rays in the Treatment of Carcinoma, The Roentgen Rays in Differentiating Between Osteomyelitis, Osseous Cyst, Osteosarcoma and Other Osseous Lesions, with Skiagraphic Demonstrations—Corrected Mal-Union in Fractures of the Radius and Ulna of Both Forearms—Exploratives Princip und Technik beim Secundaren Brustschmitt, by Carl Beck, M. D.

Ferrose, Its Chemistry and Therapeutics, by Raymond L. High, A. M., P. D. and Edward M. French, Ph. B. M. D., *With a Report of Four Cases of Anemia*.

Practical Management of the Acne and Rosacea, by Thurston Gilman Lusk, M. D.

A Novel and Rational Treatment for all Forms of Gonorrhoea, by Chancellor, A. M., M. D.

Rational Treatment of Malarial Hemoglobinuria Without the Aid of Microscope, by H. L. Sutherland, M. D.

Some Types of Retinitis and Chorio-Retinitis, by Alexander Duane, M. D.

Fruit Vessels, Mosquitoes and Yellow Fever, by Edmond Souchon, M. D.

Leucoplasia in Secondary Syphilis, by Douglas W. Montgomery, M. D.

A Pharmacological Study of An Antiseptic Preparation of Ergot Devised for Hypodermic and Internal Administration, by E. M. Houghton, M. D.

Right-Sided Cardiac Hydrothorax—Aneurism of the Arch of the Aorta, with rupture into the Superior Vena Cava—Syphilis of the Lungs Simulating Pulmonary Tuberculosis—Articular Rheumatism and Some Allied Conditions—The Treatment of Typhoid Fever, by Alfred Stengel, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR AUGUST, 1903.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	13	8	21
Intermittent Fever (Malarial Cachexia)	3	6	9
Small Pox.....			
Measles.....			
Scarlet Fever			
Whooping Cough.....	3		3
Diphtheria and Croup.....	1	1	2
Influenza			
Cholera Nostras.....	1		1
Pyemia and Septicemia	3		3
Tuberculosis.....	48	31	79
Cancer.....	7	2	9
Rheumatism and Gout		2	2
Diabetes	1		1
Alcoholism	3		3
Encephalitis and Meningitis.....	9	2	11
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	12	4	16
Paralysis	3	3	6
Convulsions of Infants	3	5	8
Other Diseases of Infancy	10	3	13
Tetanus.....	4	3	7
Other Nervous Diseases		1	1
Heart Diseases.....	19	12	31
Bronchitis	4	1	5
Pneumonia and Broncho Pneumonia.....	11	9	20
Other Respiratory Diseases.....	4	2	6
Ulcer of Stomach.....			
Other Diseases of the Stomach	1		1
Diarrhea, Dysentery and Enteritis.....	27	9	36
Hernia, Intestinal Obstruction.....	3		3
Cirrhosis of Liver.....	4		4
Other Diseases of the Liver	5		5
Simple Peritonitis	3	1	4
Appendicitis.....	5		5
Bright's Disease	37	17	54
Other Genito-Urinary Diseases.....	2	5	7
Puerperal Diseases	6	4	10
Senile Debility.....	9	8	17
Suicide	1		1
Injuries.....	17	15	32
All Other Causes.....	31	19	50
TOTAL.....	313	173	486

Still-born Children—White, 29; colored, 22; total, 51.

Population of City (estimated)—White, 227,000; colored, 83,000; total, 310,000.

Death Rate per 1000 per annum for Month—White 16.54; colored, 25.01; total, 18.81.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure	29.98
Mean temperature	83.
Total precipitation	7.48 inches.
Prevailing direction of wind, west.	

New Orleans Medical and Surgical Journal.

VOL. LVI.

NOVEMBER, 1903.

No. 5.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

Apomorphin Hydrochlorate and Its Use as a Sedative and Hypnotic in Acute Alcoholism, with a Report of Cases.*

By PAUL E. BECHET, M. D., New Orleans.

Before proceeding with the subject matter of this thesis, I think it best to give a brief history of the discovery and manufacture of apomorphin, with something about its physical properties, physiological action, and therapeutics. Apomorphin was first made by August Matthiessen and C. R. A. Wright, although there is some reason to believe that they were forestalled to some extent by Arppe.

Matthiessen and Wright read a paper at a meeting of the Royal Society held on June 10, 1869, on the results of their experiments entitled "On the action of Hydrochloric Acid on Morphin." In this paper they gave particulars of the mode of preparing a sub-

* Graduation thesis, Tulane Medical Department, 1903.

stance for which they proposed the name of "Apomorphia." It is not necessary to enter into the details of their experiments. For an account of them I shall quote Murrell. Suffice it to say that "they took some morphin, sealed it up in a tube with a large excess of hydrochloric acid and kept it at a temperature of 140° to 150° for two or three hours. On breaking open the tube it was found to contain the hydrochlorate of the new base "Apomorphin." It was purified by dissolving in water, adding an excess of bichloride of soda and extracting the precipitate with ether or chloroform. On shaking up the solution with hydrochloric acid the sides of the vessel became coated with crystals of the hydrochlorate. These were drained from the mother liquor, washed with cold water, recrystallized from hot water, and dried on bibulous paper or over sulphuric acid." This was the way in which they originally obtained their apomorphin. They also found that the new base might be prepared by digesting morphin with an excess of hydrochloric acid for some days on a water bath under paraffin; in this process the morphin loses an atom of water. These same observers showed that apomorphin was formed when morphin was treated with diluted sulphuric acid in sealed tubes for some hours at a temperature of 140° to 150° . This was pretty much what was done by Arppe; his product which was probably an impure sulphate of apomorphin, being subsequently named by Laurent and Gerhardt "Sulphomorphin." This sulphomorphin turned green on exposure to light and air and gave the reactions now ascribed to "Apomorphin." Matthiessen and Burnside in a paper read before the Royal Society, called attention to another way of making apomorphin, and that was by heating morphin with chlorid of zinc; this was previously suggested by E. L. Mayer, who worked with Matthiessen on the subject. All these specimens of apomorphin made by these different methods, seem to have been crystalline, for after an examination of them by Prof. W. H. Miller they were reported to the Royal Society as such. Dr. S. J. Gee was the first to call attention to its emetic action; he experimented with specimens given him by Matthiessen and Wright. In appearance apomorphin is a whitish or grayish white crystalline powder, soluble in forty parts of water. Exposed to the light or air it soon turns green, and, if it imparts an emerald green color to one hundred parts of water when shaken a few times it

should be rejected, unless the water is found to contain small amounts of ammonia, which is supposed to be active in causing such a change. It should always be used in fresh solutions as old ones are unstable and apt to decompose. According to Boyer and Guinard, there are two forms of apomorphin on the market, the crystalline which is the one always to employ and the amorphous, never to be used; they each have a different physiological action. The crystalline form in overdose, causing irritation, spasms, trismus, vertigo, and hyperesthesia; while the amorphous causes collapse, hypothermia, general weakness, feebleness of the heart and respiration and anesthesia. Both as a hypnotic and an emetic Chas. J. Douglas says that apomorphin is thoroughly neutralized if dissolved in a saturated solution of boracic acid. The dosage usually set down in the text-books is from one-twentieth to one-tenth by needle and one-fifteenth to one-eighth or one-fourth by mouth; it must be given cautiously, however, for in large doses it undoubtedly depresses the heart and respiration. Hare states that as much as one-fifth of a grain can be used hypodermically in strong patients. One-tenth of a grain by needle is usually the emetic dose, and in my experience has never failed to cause copious vomiting with a minimum of depression. Hare reports a death in a woman who had bronchitis, but who was otherwise healthy, to whom one-fifteenth of a grain was given. Coleman and Polk quote Binz in the following cases as illustrative of the depressing action of apomorphin:—The first is that of a man aet. 54 who suffered from chronic bronchitis and emphysema, prognosis favorable. He was given one-fifteenth of a grain of apomorphin by needle, to clear the respiratory passages. He died seven minutes later from collapse, without vomiting. In another case a solution containing one-eighth of a grain was given hypodermically; it produced a serious fainting attack, which passed off with the violent vomiting which speedily followed. In these cases the amorphous form must have been used as the crystalline form in ordinary doses does not give such untoward effects.

For its emetic action and also for its sedative and hypnotic action, apomorphin should best be given by needle, as Murrell and others have found that it does not act as an emetic as promptly, if it acts at all, when given otherwise. Polk and Coleman state

that apomorphin, when used as a hypnotic must be given by needle, for when given by mouth it has only in a very few cases been followed by a hypnotic action.

William Murrell, F. R. C. P., has used apomorphin as an expectorant in chronic bronchitis with or without emphysema in a great number of cases and found it very valuable. He always gave it by mouth, and began with five minims of 1% solution (one-twentieth of a grain of apomorphin), then increased it drop by drop until he found that the majority of his patients could take one grain of apomorphin without nausea or vomiting, or any inconvenience, three times daily. He has given two grains, three times daily, without any difficulty; some of his patients were as old as seventy-six, some were five and seven months old. Murrell quotes Wertner of Wartberg, Hungary, in an interesting case, in which the patient took by accident ten times the dose intended or over three grains with no untoward effects, besides a profuse, expectorant action. Murrell, thinking that the quality of his apomorphin was at fault, determined to give hypodermically five minims of a 2% solution from the specimen he had used by mouth; this injection caused vomiting in 35 seconds, the vomiting continuing at intervals of four or five hours for some time. The apomorphin used by him was examined microscopically by a colleague, Dr. Dupré, and every particle found distinctly crystalline; besides, it gave all the chemical reactions for apomorphin, and Dr. Dupré was satisfied that if any impurity existed it did not amount to more than 1%. Why apomorphin should act as an expectorant when administered by mouth and an emetic when given by needle seems rather strange. Murrell thinks it is simply a question of the rapidity of absorption. He has given one grain of apomorphin made into an ointment with one ounce of lard or lanolin, rubbing in one-half the quantity on two consecutive nights; it acted as an expectorant, the effect lasting several hours without nausea, hence Murrell thinks it might be used locally for children, though Butler, Binz, Hare and other authorities claim that it must be given with great care to children as they bear the drug very badly.

Dr. Chas. J. Douglas was the first to use apomorphin as a sedative and hypnotic in acute alcoholism. In an article in the *New York Medical Journal*, he says, speaking of the treatment of

alcoholism, "There is, however, one harmless remedy, that will produce sleep in a few minutes even when the patient is suffering with the wildest delirium. That remedy is apomorphin. While its value has remained so long unrecognized by the profession, yet in point of fact there is no hypnotic in our materia medica that is at once so prompt, so safe, and so sure." Dr. Douglas has ample opportunity to treat cases of acute alcoholism in the Walter Baker Sanitarium in Boston, of which he has charge. He claims that apomorphin is invaluable in insomnia, that in hysteria it gives prompt relief, and that besides acting as a sedative and hypnotic in alcoholism, it relieves the alcoholic craving; this last I have also noticed, for about half of my cases craved liquor, but after several hypodermics of apomorphin, they told me that this craving had entirely left them. In delirium tremens Douglas never uses forcible restraint, and withdraws the alcohol only gradually, and has never had a death. In my cases I have also only gradually withdrawn the alcohol, giving as nourishment milk punch, alternating with Ducro's Elixir, broths, milk and lime water, egg water, beef tea, and in twelve or twenty-four hours stopped the milk punch and Ducro gradually, and kept on with the nourishment given frequently, for in such cases of alcoholism, nourishment is the most important factor. In the following report of eight cases it will be noticed that I used gr. 1-30 of strychnin sulphate by needle with my apomorphin; it was given only with the object of counteracting the depressing action of apomorphin on the circulation and respiration and I found that with its use I had no appreciable depression. In one case I did not use the strychnin at all, as I wanted to satisfy myself that it did not help the sedative and hypnotic action of apomorphin, and I found that the apomorphin acted as well alone as when given with the strychnin, but that the respiration and pulse in that particular case was very much faster than in the other seven cases in which strychnin was used, so I concluded that strychnin does counteract the depression of heart and respiration following the use of apomorphin, in frequent doses. The following are the eight cases. The apomorphin and strychnin always used by needle.

Case 1. W. K., aet 42, a newspaper man by occupation. Admitted to the ward on June 16, 1902, during an attack of delirium

tremens, he had to be held in bed as he imagined there were some men standing around and who wanted to kill him. He also saw many wild animals surrounding his bed some of which were trying to jump at him. He was doing his best to get out of bed and struggling with all his strength, skin moist, cold and clammy, pupils dilated, pulse small and rapid. Tremors well marked. He was given apomorphin, gr. 1-30, strychnin, gr. 1-30 by needle, vomited slightly one-half an hour after, and fell asleep; he slept one hour, after which he was much quieter, not requiring any one to hold him in bed. In an hour he was given apomorphin, gr. 1-30 and strychnin, gr. 1-30 hypodermically; he fell asleep immediately and slept an hour and a half without nausea or vomiting. When he awoke, the delirium had left him, his hands were almost steady, and the cramps in the calves of the legs which had caused him so much pain when admitted, had disappeared altogether; he took his nourishment with evident relish. On being questioned, patient stated that he had been an alcoholic since 20 years, going on regular sprees of from three to seven days duration at intervals of about two months. The last spree had been lasting a week, the patient drinking more than usual; he claimed to have not had a dinner for twenty-four hours prior to admission, nor to having had anything to eat in twelve hours. The apomorphin and strychnin in doses of gr. 1-30 by needle were given three hours apart, so that made in all four doses of apomorphin and strychnin which the patient received. He was not nauseated and did not vomit from the last two doses of apomorphin, but slept at intervals all afternoon; he slept through that night, without any dreams or visions whatever and the next morning had entirely recovered from his attack of delirium tremens; he claimed that he did not crave liquor at the time; he was discharged cured.

Case 2. F. R., aet. 49. Admitted June 19, 1902, had been drinking steadily for three or four days prior to admission; claimed not to have had solid food or drink for 24 hours. Present condition: Very restless, trembling of hands and legs, cramps in calves of legs giving him terrible pain, pain over region of stomach, skin flushed and moist, pulse slow, patient slightly delirious, tossing about from side to side in bed. Claims not to have had any sleep, in past three nights; apomorphin, gr. 1-40 by needle;

slight nausea ten minutes after, followed by slight drowsiness; patient quieter. One hour later he was given gr. 1-30 of apomorphin by needle; slight nausea 25 minutes after; 30 minutes later went to sleep and slept an hour, and on awakening he was perfectly rational, the tremors had entirely stopped, the pain in the calves had entirely disappeared, the patient stating that his sleep was very restful, free from visions; he slept at intervals through the afternoon. At 7:30 P. M. he was given apomorphin, gr. 1-30 by needle; no nausea or vomiting, sleep began at 9:30 P. M. lasting almost all night. When seen in the morning patient was perfectly well and said that he had not had such a peaceful night in a week. He was kept in bed, however, that day and slept almost all the time through it and the following night. He was discharged cured the next morning.

I saw case 2, two weeks after discharge. He had gained six pounds, seemed in perfect health and claimed not to have had a drink since leaving the ward, as he did not crave it. In conclusion, it will be noticed that no strychnin was used in this case.

Case 3. A. S., aet. 59, cook by occupation. Admitted to ward June 20, 1902. Has been an alcoholic since thirty years, has had many attacks of delirium tremens, many of these treated in this hospital; in the last one treated here he says he had to be tied down, as he was wildly delirious on the seventh day after admission. Has been on a protracted spree up to the time of present admission. At present: patient delirious, very shaky, pain over region of stomach, cramps in calves of legs, no solid food eaten in two days. Physical examination: heart, normal; liver, cirrhotic, slight ascites, edema of ankles and legs. Urine examination showed: slight amount of albumen, granular and hyalin casts. At 7:00 P. M. patient was given apomorphin and strychnin each grs. 1-30 by needle; slight nausea immediately after and in 30 minutes went to sleep and slept for 2½ hours; when he awoke was much quieter. In an hour apomorphin and strychnin in doses of gr. 1-30 given by needle; slight nausea five minutes after, patient quiet and drowsy, but no sleep. At 9:30 A. M. June 21, 1902, apomorphin and strychnin in the same dose; vomited once three minutes after. Six minutes after slept an hour and a half. Patient slept at intervals during the day, his condition being very much improved, the

cramps in his legs and tremors having stopped. At 7 A. M. apomorphin and strychnin, gr. 1-30 by needle; no nausea, dose repeated at 10 P. M. and 2 A. M. Patient only slept a few hours, being quite restless and slightly delirious, and, when left alone, would attempt to get out of bed for he claimed there were frogs of all colors hopping about his bed. The next day the apomorphin was increased to gr. 1-20 and given with the same dose of strychnin at 10 A. M., 2 P. M. and 6 P. M., with much better result, the patient sleeping through the greater part of the day, and becoming perfectly rational. He vomited only once and that a few minutes after first dose at 10 A. M. Apomorphin, gr. 1-20, strychnin, gr. 1-30 given only twice that night, with no nausea, but good hypnotic effect, the patient sleeping well that night. On the morning of June 23, 1903, he seems perfectly well of his alcoholic storm, so the apomorphin is discontinued, the strychnin is given by mouth in the form of elix. strychniæ (a hospital formula containing 1-32 grain to the drachm); the patient continued well that day, but was very restless during the night, did not sleep at all, complaining of many visions, especially of people walking around and around his bed. The next day apomorphin, gr. 1-20, strychnin, gr. 1-30 were begun again, every 5 hours by needle, with only slight nausea, no vomiting, with the result that the patient slept all night without dreams, and the next morning apomorphin was stopped, the strychnin given by mouth. From then on the patient had no relapse, sleeping well at night. He was discharged cured of his acute attack and improved in his ascites, and kidney complication, for which he was given a solution of acetate and citrate of potassium, of each twenty grains, in water, three times daily; being constipated his bowels were kept open with pulv. jalap co. in drachm doses, every other day in the morning. A urine examination on the last days of his stay in the ward, showed an absence of albumen and casts.

Case 4. S. M., aet. 62, housekeeper. Has been going on periodic sprees lasting about a week, at intervals of some months, for the past thirty years. This last spree prior to admission, has lasted about four days, patient has been drinking hard and eating little, not having had solid food in over 24 hours, she claims not to have had a drink in about that same time as her money gave out.

Patient admitted June 26, 1902, in a seemingly alarming con-

dition. Her pupils dilated, skin moist, cold, clammy, tossing about from side to side, moaning and talking at random. At 12:05 P. M. she was given apomorphin, gr. 1-20, strychnin, gr. 1-30 by needle, vomited once, ten minutes after; fell asleep immediately and slept till 2 P. M., when she awoke perfectly rational, tremors had almost disappeared. She dozed off all afternoon till 6 P. M., when strychnin and apomorphin, of each gr. 1-30 were given by needle; she was not nauseated and slept till midnight, when the apomorphin and strychnin were repeated, with no nausea but a hypnotic effect that lasted till 8 the next morning. Patient now entirely recovered but as a precaution the apomorphin and strychnin each gr. 1-30 were given at 9 A. M. and 1:15 P. M. without nausea or vomiting; patient rested quietly during the day, and slept all through the night; she was discharged in the morning cured.

Case 5. H. B., aet. 42 mechanic by occupation. Born in Mississippi. His alcoholic habit was begun five years ago. He goes on sprees at long intervals; at one time he abstained for a year. He was admitted August 18, 1902, by the ambulance; he had been drinking since 24 hours; he was unconscious when picked up, but soon revived, and when I saw him in the ward he presented the typical picture of delirium tremens; as soon as he saw me he insisted that I kill two spiders which were crawling on his pillow; he next saw thousands of cats on the floor around his bed; he had the tremors well marked, and that peculiar condition I have noticed in the majority of my cases, severe pains like cramps in the calves of the legs. At 10:15 P. M. he was given apomorphin, gr. 1-20, strychnin, gr. 1-30; he vomited at 11 P. M., slept from 11:30 to 1:30 A. M., very restless when he awoke at 2 A. M., apomorphin, gr. 1-20, strychnin, gr. 1-30, by needle. Vomited at 2:30 A. M. and again at 3. Slept from 3:30 A. M. to 6:30, after which he rested quietly, the delirium completely gone; has only slight tremor. Apomorphin was, with the strychnin, in the same doses repeated at 10:30 A. M., 12:30 P. M., 2:30 P. M., 4:30 P. M., without nausea or vomiting. Patient slept 2 hours during the day, rested very quietly, the tremor has disappeared. At 11:10 P. M., August 19, apomorphin, gr. 1-20, strychnin, gr. 1-30, were given. Slept from 11:30 P. M. to 1 A. M.; no nausea. At 3 A. M., apomorphin and strychnin repeated; slept from 3:20 to 5 A. M. with-

out nausea or vomiting. Patient has then slept only about three hours, still he is resting quietly, and seems well. Apomorphin and strychnin, of each gr. 1-30, are given at 10:10 A. M., 12:30 P. M., 3:10 P. M., and 5:30 P. M.; no sleep at all during the day but patient did not vomit and was not nauseated, resting very quietly. No more apomorphin or strychnin given, the last dose being at 5:30 P. M. The patient slept all night, dozed off all during the next day, and passed the night in sleep. He was discharged on August 22.

Case 6. H. M., aet 28, clerk. Has been going on sprees at intervals of about six months for the past six years; his sprees last two or three days. Present one began 5 days prior to admission, patient being drunk all that time. Admitted August 30, 1902, very restless but perfectly rational. He was given apomorphin, gr. 1-30, strychnin gr. 1-30, by needle, at 10 P. M., 1 A. M., 4 A. M., 7 A. M.; he was slightly nauseated, vomited once, slept all night and part of the morning, is entirely well, and discharged, August 31, in the afternoon.

Case 7. M. S., Aet. 30, laborer. Has been an alcoholic for past twenty years; claims that he has been continually drunk for five weeks prior to admission, his spree lasting up to the day before. When admitted patient was delirious, tremors present, severe pain over region of stomach, very restless. Apomorphin and strychnin, of each gr. 1-30 by needle; vomited five minutes and again 10 minutes after; slight drowsiness, but no sleep. Apomorphin, gr. 1-20, strychnin, gr. 1-30, were given in an hour without nausea or vomiting, patient slept an hour and a half. The same dose was repeated at 2 A. M. and 7:10 A. M., but no hypnotic effect followed. At 8 A. M., June 19, 1902, patient rational and much quieter, and notwithstanding only 1½ hours sleep, he has passed a fairly quiet night. Apomorphin, gr. 1-20, strychnin, gr. 1-30, by needle, were given at 9:45 A. M., 1:45 P. M. and 7:30 P. M.; patient was nauseated only once, but did not vomit, slept only about an hour; at 11 P. M. apomorphin, gr. 1-15, strychnin, gr. 1-30; no nausea. patient slept all night; the next morning he seemed perfectly well. apormorphin discontinued, strychnin continued, but by mouth. Patient slept through the two following nights, and in a few days was discharged cured.

Case 8. W. H., aet 33, sailor. Has been a drunkard 11 years; he says that he has often drunk 1½ pints of whiskey daily, drinks every day, but often goes on sprees lasting several days. Admitted August 18, 1902. Very restless, cramps in calves of legs, complains of severe pain in region of the stomach. Patient not delirious, though he claims that the night before, he had many nightmares. At 2 P. M. apomorphin and strychnin, of each gr. 1-30; slightly nauseated few minutes after. Slept from 2:30 to 3 P. M. At 4 P. M. the same dose was given; vomited once; no sleep. At 6 P. M. apomorphin, gr. 1-16, strychnin, gr. 1-30; vomited once; slept till 10 P. M., when apomorphin, gr. 1-20, with the usual dose of strychnin was given and again at 2 A. M. and 7 A. M. August 19, 10 A. M. Patient has slept all night; no nausea; has entirely recovered, apomorphin stopped 6 P. M., patient has rested well during the day, sleeping at intervals. He slept through entire night, and was discharged cured.

CONCLUSIONS.

1. That strychnin counteracts the depression of heart and respiration which follows the use of apomorphin in frequent doses.
2. That apomorphin acts as well in delirium tremens as in the other conditions of alcoholism, and that it is indicated in combating such a condition.
3. That it is better to begin with a small dose, about gr. 1-30, and increase it if necessary. It will be seen that gr. 1-15 was the largest dose required to obtain the desired effect.

In conclusion, I wish to thank Drs. W. W. Butterworth and A. Weber, in whose wards these eight cases were treated.

Reports of Cases of 1. Parasites in the Nasal Cavity; 2. Cocker-burr in the Naso-Pharynx of a Ten Months Old Child; 3. A Case of Anophthalmos.*

BY OSCAR DOWLING, M. D., Ex-Councillor Medical Association of the State of Alabama. Ex-Senior Resident Surgeon Eye, Ear, Nose and Throat Hospital, New Orleans. Ex-Chief of Clinic and Assistant to the Chair Ear, Nose and Throat New Orleans Polyclinic. Late Oculist and Aurist Shreveport Charity Hospital. Oculist Texas and Pacific Railway, Shreveport, La.

In presenting the cases I give an account of to-day, I do so simply as a matter of interest, not instruction. It is truly said,

* Read before the Louisiana State Medical Society, April 28-30, 1903.

“there is nothing new under the sun,” but while these cases may be familiar to many, I feel assured they will be new to some of you, as they were to me.

Case 1. Mary J., colored, aged twelve, was referred to me by Dr. W. L. Dickson. She complained of inability to breathe through nose, frontal headache and nose bleeding. Her nose and face were swollen and the nares were filled with muco-purulent bloody secretions. Three days previous she had a chill followed by frequent attacks of sneezing and nose-bleeding. There was marked depression of her vital powers, her pulse was rapid and feeble, temperature $101 \frac{1}{5}$.

On first examination I thought I had to deal with a rhinolith. The great rarity of this affection led me to think of every disease but screw-worms in the nose until inspection brought the worms into view.

With Politzer's cotton forceps, a blunt hook and the spray I succeeded in cleansing the nose thoroughly but not until I had removed, by actual count, one hundred and twenty-three screw worms. The bony wall of septum was found denuded and further inspection showed oozing from the antrum of Highmore. The antrum was washed through the natural opening by means of a Hartman's canula attached to an Omega syringe with a mild solution of boric acid.

Two days later the patient presented herself with marked edema around root of nose and inferior lid of right eye, this being same side in which the worms were found in nose. Temperature 101. Nose and antrum washed and disinfected. Before leaving she told me of blowing seven worms from nose since previous visit. Four days after first visit temperature was normal and all signs of swelling subsided. Patient claims to have blown five worms from nose during last forty-eight hours. Inspection revealed no worms. Washed a little pus from antrum. Cleansed as before. Patient never returned but two months later I met her on the street with her parents who informed me that the girl had not suffered the least inconvenience since her last visit and for that reason they did not think it necessary to see me again. I requested them to call at my office that I might see the condition of septum, which had been

denuded by the worms, but to my disappointment I have not had an opportunity of gratifying this curiosity.

The history elicited leads me to believe this girl suffered from ozena and these screw-worms must have been the result of ova deposited by a fly while she slept.

Shurley, in his excellent work on the nose and throat, quotes the following: "The fly is an ovo-viviparous insect, the larvæ, the *Sarcophaga Georgina*, being hatched within the oviduct. It is twelve millimetres in length, with a black spot between the copper-coloured eyes; the thorax light gray, with seven longitudinal black stripes; the satiny, silver gray, abdomen checkered with black lines; black feet, and gray translucent wings. The larva is eighteen millimetres long, acephalous, white cylindrical, tapering to a point at the mouth and surrounded with a spiral ridge like a screw, whence its popular name of screw worm. The posterior three-fourths of the body, up to the point at which it begins to taper, is three millimetres in diameter; the mouth is formed by a sort of lip, on which are two small protuberances, from the centre of the base of which protrude two black, very sharp corneous mandibles or hooklets, united at their origin in the lip, but separate outside. On the upper side of the body, back of the mouth, and underneath the transparent skin, is a brown patch. To ascertain the time occupied in their development, the larvæ were expressed from a fly upon a piece of tainted meat, and inclosed in a widemouthed bottle and placed in the sun. In twelve hours it was estimated that the mass had increased in bulk forty fold. At the end of twenty-four hours the maggots were half grown and in forty-eight hours they were fully developed."

With these screw-worms removed I endeavored to ascertain the best method of bringing about their destruction with the following results: Ten subjected to inhalation of chloroform died in thirty seconds. Those immersed in chloroform died instantly. Those immersed in spirits of turpentine died in forty minutes. Those immersed in calomel were living after six hours—only two dead. Those in bichloride mercury solution, one to five thousand, were living, with the exception of two after six hours (In this I used twenty). Ten in bichloride solution, one to five hundred, died in thirty-six hours; ten in a solution of one to two hundred and fifty all died in twenty-four hours.

I am convinced that the inhalation of chloroform would enable one to remove these parasites from the nasal cavity, with the assistance of the patient blowing of the nose and then some method could be devised for bringing about their destruction.

Case 2. George T., colored, ten months old, sent to Dr. I. M. Callaway by Dr. H. J. Parsons of Mansfield, La., was referred to me. Inspection showed complete stenosis of nose, both nostrils filled with a profuse sero-mucous discharge. The mucous membrane was swollen and there was some erosion of nostrils and lip.

After cleansing nose cocain was applied to allow free probing, but, as this did not suffice, chloroform was administered, sufficient to produce complete anesthesia. Here it might be well to state the little fellow came near relinquishing all claims on life from the effect of the chloroform and for the restoration of the child I acknowledge a debt of gratitude to Dr. Callaway and the assistants at the hospital for valuable services rendered in performing artificial respiration. The foreign body was easily located in the left nostril but several efforts at removal proved futile. Examination of right nostril showed foreign body in this side but efforts to remove were unsuccessful. Digital exploration revealed the foreign body in the nasopharynx but I was unable to manipulate with my finger on account of space being so limited. An ear curette was bent and worked through the nostril in connection with my finger in the naso-pharynx by means of which a cocklebur was dislodged. The parts were flushed with an antiseptic solution. Child made a prompt and satisfactory recovery and went home with his grandmother two days later.

Case 3. Anophthalmos is a term applied to cases in which clinically no eyeball can be found or felt. Infant H., white, born of healthy parents nine months and seven days after marriage, child in perfect health, well formed and free from other malformations, was brought to my office by Dr. W. E. Hawkins to whom parents had been referred by Dr. C. C. Allums of Montgomery, Louisiana. The baby was sixty-five days old when seen, the sockets were well formed but there was complete absence of an eyeball. The optic foramen of each side contained what appeared to be fibrous tissue in a raveled condition. The lids were united about one-third from outer canthus.

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL,
November, 1903.



Dr. Dowling's Case of Anophthalmos.

Clinical Report.

Hemophilia Complicated by Attacks of Multiform Erythema of the Hemorrhagic Type.*

By T. H. YOUNG, M. D., Bedford, Ala.

L. McA., female, aged thirteen, of English and Scotch extraction.

Family history: Both parents, all four grandparents, and one great-grandparent living. Four sisters and two brothers are all living, strong and healthy. The girl's mother's mother, who is a sister of the lately famous Alabama outlaw, Reuben Burrow, gives a history of very excessive menstrual flow, being compelled to go to bed at each epoch. She had frequently to summon her physician to check the flow. There is no other history of circulatory disturbances in the family.

Personal history: The girl is one of twin sisters, the mother being a primipara at the time of their birth. The two girls are very much alike, so much so that only those who are intimately associated with them know them apart. The twin sister, however, weighs a few pounds more than the afflicted child.

At about the age of two years, when they were subjected to such traumatisms as are common to all children, the mother began to notice the hemophilic tendency in the child. Any trivial blow or bruise, would cause marked swelling characterized by a bluish discoloration. Such swellings were slow in resolving, evidently from the extravasated blood. Any small cut or abrasion would lead to profuse hemorrhage. Several times the family physician was summoned to arrest it. Upon two occasions the girl was almost exsanguinated from epistaxis. Both anterior and posterior nares had to be plugged before the bleeding could be arrested. From each of these attacks she was confined to her bed for several days.

In May of 1900, the girl suffered with an eruption which lasted three weeks. A similar attack in September of 1901. Both were reported by the mother to have involved the hands and legs with some few patches upon the body. The attending physician had given some local application for each of these attacks.

In June of 1902 the girl had another. The eruption was vesicular, involving the back of the right hand and extending well

* Graduation thesis, Tulane Medical Department, 1903.

down upon the backs of the fingers. The eruption was discrete. The vesicles were not large, averaging about one-tenth inch in diameter. All were of dark bluish color indicating some hemorrhagic effusion. On opening one of the many which seemed to be filled with this substance a fluid mixed with blood was discharged.

There was only moderate itching and burning. Her temperature was very slightly elevated. She had suffered with some headache the previous day.

The above mentioned symptoms together with the recurring nature of the eruption led to the diagnosis of multiform erythema.

The patient was given a saline purge, and a 4% carbolic acid solution in water to be used locally.

When seen two days later, a new patch was found higher up on the same wrist. These vesicles were already bluish-black in color. The hemophilic diathesis was evidently the cause of the early and constant extravasation of blood into the vesicles.

The saline purge was continued every other day, while the carbolized solution was applied regularly. The eruption did not appear in any other part. It gradually faded, followed by desquamation.

In the following October, the eruption again recurred. It began upon the backs of the hands simultaneously. The eruption had been present for a week when seen, the mother in the meantime having used a carbolized solution which failed to stay the eruption. The eruption was much the same as in the previous attack. Some patches appeared upon the ankles. The patches upon the legs were larger, with larger vesicles. There was the same early hemorrhagic effusion.

Upon going over the child's body at this time, two peculiar bluish swellings were found. One upon the knee had been caused by a fall. The other was upon the arm and had been produced by a blow. Each was considerably raised from the surrounding surface, and were distinctly ecchymotic.

As the fever was 102° F. phenacetin was prescribed; a saline purge was given daily; a carbolized solution alternating with a mild sublimate solution was applied locally. Hoping to influence the hemophilic diathesis syrup of calcium lacto-phosphate was prescribed to be used for a considerable time.

The eruption again faded within a few days, followed by distinct desquamation.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. E. J. GRANER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING OF SEPTEMBER 12, 1903.

DR. STORCK, Vice President, in the Chair.

DR. LEMANN acted as Secretary.

DR. J. F. OECHSNER read a paper on

Talipes Equinovarus as Corrected by the Lorenz Method of "Modeling Redressement," with Report and Exhibition of Two Cases.

To those familiar with and interested in orthopedic work, the visit of Dr. Adolf Lorenz, of Vienna, to this city in May must have been most interesting.

Aside from the widespread morbid curiosity of the laity, there has been in the profession that quiet and subdued, though not less enthusiastic, scientific interest. At first thought it seems difficult to realize how such a simple procedure as that of Lorenz should have practically revolutionized our previous methods in the correction of clubfoot deformities, but one has but to stop a moment and reflect upon his past experience, upon the tedious partial correction and use of braces over an extensive period of time, to realize the value of this work. What formerly required years to accomplish is now done in a few months.

True it is that the method of manipulative correction in inveterate clubfoot is not new with Lorenz, for we have practiced it for a long time, but we never went far enough in our correction; we were afraid of the trauma to the tissues; we never carried out that very essential in treatment, the absolute overcoming of all resistance and destruction of elasticity on the part of these resisting structures, so as to permit of a complete reposition at once.

Lorenz must indeed have become the bugbear of the orthopedic instrument maker, for with his method cumbersome, elaborate and expensive apparatus has become a thing of the past. One has but to glance at some of our works on orthopedic surgery, where page after page is devoted to the illustration of clubfoot braces, to appreciate this fact; our more recent text-books are not so profusely illustrated in this particular.

Lorenz is the exponent of manipulative force, thoroughly carried out, as he applies his principles in most of his orthopedic work, other than that of clubfoot.

In an address entitled "On Some of My Principles in Orthopedic Surgery," delivered before the Orthopedic Section of the New York Academy of Medicine, December 19, 1902, and published in the *Medical Record* of December 27, 1902, he says, in relation to clubfoot:

"In all deformities of the foot, both paralytic and congenital, I rely exclusively upon my modeling redressement of the foot, and from a thousand-fold experience, I can assure you that the results are generally beyond expectation. In my opinion the wedge-shaped incision of the bones of the foot, newly recommended by the French, is nothing more than a deplorable mutilation of the foot. The results of the modeling redressement of clubfoot have been preferred by many others and I am happy to say that at least in Germany this method is predominant."

Our limited experience and observations since last May, coupled with our experience of the past with other methods, compel a hearty indorsement of this statement.

Dividing the complex of clubfoot deformity (the equinovarus variety) into the four components of plantar flexion, adduction, extension, supination, these are corrected in order. This correction in order is an important matter, as the correction of one deformity before another, out of the regular order, renders much more difficult that which otherwise might have been comparatively easy of accomplishment. Thus if the equinus were first corrected by means of stretching or a tenotomy of the Achilles tendon, the valuable leverage of the contracted tendon would be lost in the attempt at correction of the varus.

By means of the hands unassisted, or preferably with the use of

a wooden wedge, well padded, the plantar flexion and adduction are corrected by intermittent manipulation. This is started gently at first, the pressure being occasionally relaxed; the force is gradually increased until the resistant structures stretch or partially tear subcutaneously. Care must be taken not to apply the force suddenly or too persistently continuous, as then there would be, as has occurred, a complete laceration through the skin, constituting in reality an unintentional modified Phelps' operation. *All resisting structures must be stretched until their elasticity has been entirely overcome*; in this procedure we are not entirely in accord with the statement of Dr. Lorenz, that strength is not necessarily required; it may be that further skill may obviate the necessity for the display of strength, but observers are more or less agreed that this work is quite exhausting to the surgeon. In cases offering greater resistance to correction, Lorenz applies a wrench of his own pattern, but this was not used on any of the cases operated on here. With the plantar flexion and adduction completely corrected, attention is paid to the equinus deformity. With the same manipulative force the foot is powerfully dorsi-flexed and with the whole foot as a lever, this should be easier to accomplish than the preceding correction; additional leverage is afforded with the face down and the active correction can be supplemented by the use of an Esmarch bandage placed around the front of the ankle, upon which traction is made by an assistant. When the tendo Achilles is much contracted, a subcutaneous tenotomy should be done and there can be no valid objection to this, as the wound heals very readily.

The rolling out of the foot into a position of pronation, thereby overcoming the fourth deformity, supination, is comparatively easy. The foot should now be perfectly limp and we should be able without effort to put it in a position of exaggerated correction. Any resistance should be met by further manipulative effort. It will thus be seen that the foot is treated, as Lorenz says, as a mass of clay, which is modeled in its proper form.

We have also been taught much in the application of the Plaster of Paris dressing, particularly in the making of an anterior fenestrum to relieve pressure. A knit stocking is first applied, upon which there is snugly and evenly applied cotton batting and flannel

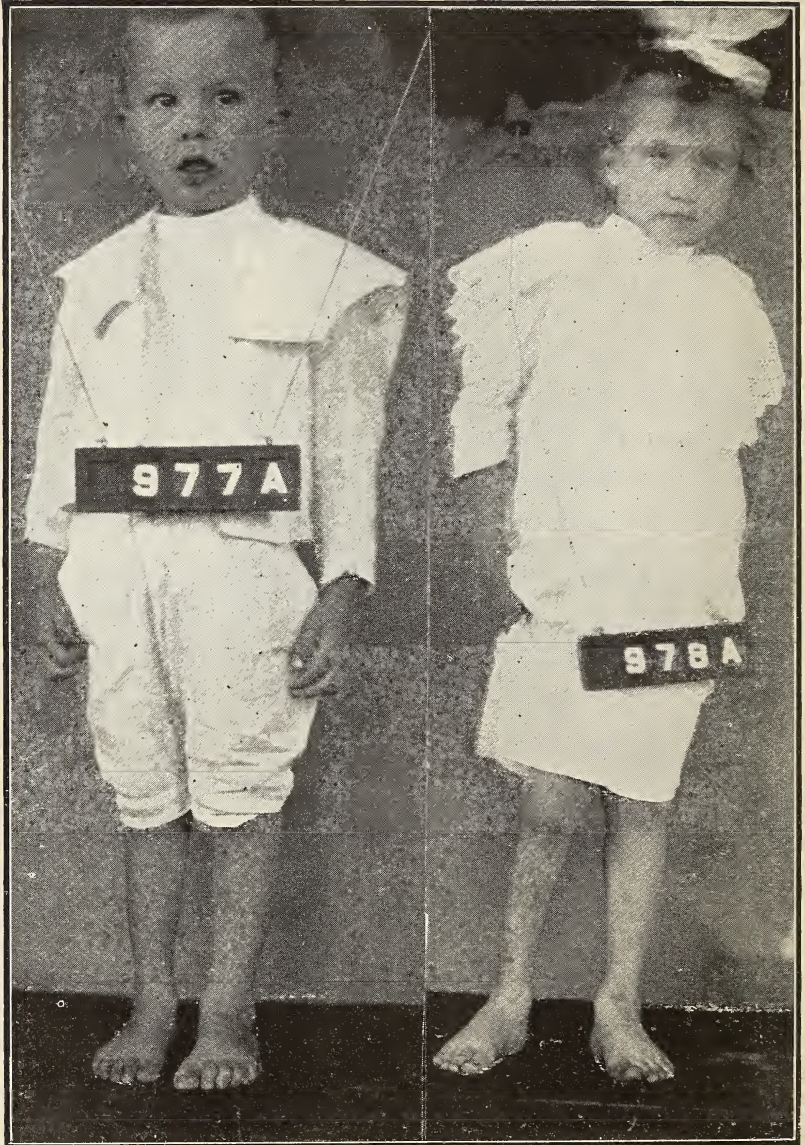
or gauze rollers; we must be careful to avoid any creasing which occasions undue pressure and pain. The Plaster of Paris is now applied quite firm and thick, particularly on the sole, and the foot in the meantime maintained in a position of exaggerated correction; almost invariably, if not invariably, the toes will be found much swollen and pale, upon cutting the dressing at the tip. A rectangular fenestrum is now cut in the anterior part of the cast from near the upper end to near the lower and everything removed down to the skin; if this does not suffice to restore the circulation, a linear incision is made in the cast through its lowermost termination, and this made loose until the toes regain their normal color; a fresh dressing of plaster is now applied to close the gap. In a few days after the subsidence of reactive swelling and what pain there might be, the patient is allowed to get out of bed and urged to walk, in order to maintain the correction.

Case 1. *Congenital Talipes Equinovarus.*

Dewirt M., 4 years old, was born with the clubfoot. Treatment was begun when he was six weeks old and consisted of manipulation and the use of adhesive plaster; this was continued for four months. He walked on his ankle from the beginning of his walking period. He was brought to my attention when he was two years old. There was then a marked talipes equinovarus. The tendo Achilles was severed subcutaneously, the deformity considerably reduced and Plaster of Paris repeatedly applied for three months, at which time a brace was ordered. The case then went from observation (which, by the way, is a rule with but few exceptions in my experience), until the visit of Dr. Lorenz to this city last May.

The foot at that time presented a marked talipes equinovarus; the Achilles tendon had again contracted and the little fellow walked on the dorsum of the foot, that part presenting a marked callosity.

On May 12, under chloroform anesthesia, the Lorenz method of modeling redressement was practiced. The operation, including the application of the Plaster of Paris dressing, lasted something over an hour. He suffered considerable pain the first night. Notwithstanding the cutting of an anterior fenestrum, the toes remained swollen for a long time, but the circulation was good. He walked on the fourth day after operation. The cast was removed



Dr. J. F. Oechsner's Cases of Talipes after the Lorenz Treatment.

at the end of two weeks, because the little fellow had worn its sole, and a new cast applied, which remained on for three weeks, followed by a cast for seven days.

The present condition of the little fellow, as you will see (977 A), is one of complete correction of the deformity, save a slight plantar flexion and a tendency to adduction. This latter, brought about by the accustomed position of the foot, and the greater power of the muscles on the inner side, is easily corrected by the little patient himself when his attention is called to it. The treatment, of course, is not yet complete and I would hesitate to pronounce him cured, for we are now in what Whitman calls the "supervision period," when he must be watched and taught to walk properly, supplemented by massage and, if need be, electricity, to the muscles on the outer side of the leg and foot.

Case 2. *Paralytic Equinovarus.*

Hazel B., six years old, was a healthy child at birth, with no deformity. At the age of fourteen months, while playing, she fell on her side and the next morning her mother noticed she could not sit up. She was taken to the Hospital where it was found there was complete paralysis of the lower limb. She was treated by means of electricity for one year and at the end of this time began gradually to crawl and then to walk, when it was noticed she walked on the outer side of her foot. The foot deformity became progressively worse, particularly the extension. About 1½ years ago a brace was ordered by the attending specialist on nervous diseases. When she came under observation during May, of this year, there was marked talipes equinovarus, particularly of the equinus deformity; the little patient walked on the dorsum of the foot, which was marked by a callosity. There was about 2 inches shortening of the leg.

On May 16, under chloroform anesthesia, correction was made by the Lorenz method with a subcutaneous section of the tendo Achilles. The limb was encased in Plaster of Paris and the anterior fenestrum made. Continued severe pain made it necessary to remove the cast on May 20, when the wound in the tendon was found healed. A second cast was applied, which was allowed to remain for about six weeks. A few subsequent casts were applied

at short intervals, as the little patient would wear out the sole. The shoe she now wears was then ordered.

The foot at present shows a slight tendency toward adduction and the same remarks as to post-operative treatment as mentioned in the previous case, apply here (978 A).

I regret exceedingly not having photographed these little patients before operation, but at the time our corps of hospital assistants was so taxed with work, that this was inadvertently neglected; the accompanying photographs show the results of treatment.

Without carrying this discussion further with the mention of little details which I have noticed, and which anyone operating will notice, I would like to say one word in conclusion as to an appropriate shoe to be worn subsequently. Lorenz, I believe, mentions nothing special, save making the outer side of the sole a little higher than the inner to maintain correction.

In order to meet the condition of flat sole incident to correction, I have added to this the steel shank and straight inner sole, a suggestion made by Lovett, of Boston, for the treatment of flat foot.

DR. PERKINS then read his paper.

The full report of this case will be presented to the Society when the final result can be determined, and at Dr. Perkins' request is omitted now to be published in full later. The child presented for examination was a girl 11 years old who had been treated by cutting operation for talipes equinovarus when she was two years of age. Last July Dr. Perkins had corrected the deformity (which had persisted in spite of the previous tenotomy). The cast had been removed only a few days ago and the child still limped in walking, and there was an ulcer under the head of the fifth metatarsal apparently due to pressure from the cast. The little patient stood well, with the sole of the foot resting on the ground. The equinovarus was thoroughly corrected, but the gait in walking was not satisfactory. He hoped to report a more satisfactory condition of affairs and present the patient for examination again in a few months.

Dr. Perkins expressed his appreciation of the suggestions and assistance of Dr. Parham, who had been his consultor in the case.

DISCUSSION.

DR. MATAS—The cases presented were a great credit to the men who had operated. If Lorenz' visit had done nothing more than to give us such able followers, it would have been worth while. Of course the profession had long been acquainted with the principles and technic of the forcible manual reduction of clubfoot as practiced by Lorenz; but surgical methods had been in the ascendancy; and owing, partly, to inexperience, partly to tradition and example, a most valuable method of treatment had been forgotten and would probably have remained in unmerited neglect had not Lorenz' brilliant demonstrations throughout this country roused the profession to a full recognition of its actual value, and, in fact, its superiority to the procedures in vogue. He was one of those who believed that great good had come from Dr. Lorenz' visit; not only because of the actual benefit he has conferred upon the many sufferers he had treated; but more because of the profound impression his convincing and masterly demonstrations had produced on the profession. While no doubt harm would follow in some cases by the indiscriminate application of Lorenz methods, in injudicious and inexperienced hands, there could be no question that men had been started to thinking and that a salutary impetus had been given to the correction of a deformity by a procedure which could never have been appreciated at its true worth except for the direct observation of its possibilities at the hands of the master.

Two days ago Dr. Matas had assisted in removing a cast from a case of clubfoot operated by Dr. Lorenz during his visit here. The patient was a little boy aged 8 years, upon whom Dr. Matas had done a tenotomy and plantar section for an extreme type of equinovarus some years ago but in which relapsé had occurred. Looked at from the operative point of view, there would have been no way of reducing the deformity except by an astragalectomy or an extensive tarsectomy. After great efforts of more than one hour's duration, Prof. Lorenz had succeeded in moulding the foot into a position of over-correction. All resisting obstacles, even to the bones of the tarsus and metatarsus, which were fractured at

resisting points, were overcome. The procedure adopted was comparable to a subcutaneous osteoclasis in which the hands of the operator played the part of a wrench and osteoclast.

When all resistance had been overcome, the foot could be overcorrected without the least tension. After the application of the plaster cast, the circulation of the foot was very much compromised but by cutting a fenestrum—a wedge shaped section from the whole anterior surface of the cast—the color of the toes had been restored from a dark, cyanotic blue to a normal pink. Lorenz had given instructions to the family of the patient that the cast should remain four months and that the patient should then be fitted with a shoe with a wedge-shaped sole. At the appointed time the cast which had remained unbroken during the four months, in spite of the great activity of the boy, was removed. The result was beautiful; there were no atrophic changes of the leg and the deformity was perfectly corrected. There was only some relaxation at the ankle and a tendency to over-correction on standing, with planus and abduction. The results could not be more gratifying for no operative procedure could have been as satisfactory.

DR. PARHAM said that he had been much impressed by Prof. Lorenz' work. Two things especially he considered, had been shown us: First, that more force could be applied in correcting these deformities than he had thought possible or justifiable; second, the idea of removing at once a broad strip from the whole of the front of the cast so as to inspect the leg and relieve the tension. This latter he considered of great importance, indeed, of necessity, after the violent manipulations. He agreed with Bradford that the gratitude of the profession of this country was due to Lorenz for coming and making these demonstrations. If Dr. Perkins were correct in describing the amount of force employed, then he should personally feel doubtful about his ability to reduce some of these deformities. The fear of gangrene was groundless, for in Lorenz' vast experience it had never occurred. In cutting the fenestrum from the front of the cast he preferred to cut the whole length without leaving a strip at the lower end, as described by Dr. Oechsner.

DR. DELAUP had nothing to add and merely wished to compliment the author.

DR. OECHSNER said that Lorenz put no limit to age in the correction of clubfoot. The objection as to bones being too old did not hold. For the correction of the flatfoot Dr. Oechsner had used to satisfaction the steel strip incorporated in the sole of the shoe, as suggested by Lovett, of Boston. The application of force had naturally been regarded with fear, but in the light of Lorenz' experience we should no longer entertain this. Lorenz' cast was much superior to any he had ever seen applied and its lasting qualities seemed to have proved as great as its other virtues. He did not agree with Dr. Parham as to cutting the fenestrum the entire length for he thought that this might permit the foot to return to partial deformity. Perhaps in the future greater skill in applying force might obviate the necessity of very great force.

DR. PARHAM disagreed with Dr. Oechsner with regard to cutting a fenestrum in the plaster. It was his observation that Lorenz, although he did occasionally leave a strip above and below temporarily while inspecting the leg through the fenestrum, he found nearly always the tension below so great that the lower bridge was cut through before the toes regained their free circulation. So he (Dr. Parham) preferred to cut the whole length at once in order to save time under the chloroform. With the foot converted into a plastic mass there was no danger that the correction would be lost whilst tightening it up with the circular plaster bandage.

DR. MATAS said that in the case in which he had just removed the cast Prof. Lorenz had cut the fenestrum the entire length. Besides the reason already urged by Dr. Parham, he wished to direct attention to the fact that by the time the stage of cutting the fenestrum had been reached the plaster would have partially set and prevented any return to deformity. As to the use of force, on which so much stress had been laid, the Lorenz wrench would obviate the necessity for this.

DR. OECHSNER said that he had evidently been in error about the fenestrum. He regretted that patients did not come regularly for treatment and observation.

DR. PERKINS—Dr. Parham had suggested the use of the soft rubber arch for correcting the flatfoot in his case. On account of the ulcer which was still present on the child's foot, the whole de-

formity had not been corrected, but when the ulcer healed, the weight of the child would assist in the correction. The older the patient the less could we expect in the way of result, for we could do better with cartilaginous bones than we could with bones more infiltrated with lime salts. He was convinced that in the manipulation there must be some crushing of bones and some fractures must occur. The older the patient the greater the pulpification of bones or the greater the gaps of the bony arch. It was important to use little water in putting on the cast in order to have the plaster set almost immediately. With regard to the use of force he was of the opinion that skill was a great factor, as it is in wrestling.

DR. W. J. DUREL read a paper on

The "Mode of Life" and the Use of "Culture Products" in the Treatment of Pulmonary Tuberculosis.

When we consider the large percentage of cases and the frightening death rate of tuberculosis, we realize at once that the surname of "White Plague" often applied to it is not in the least too exaggerated. No disease whatsoever presents so many obstacles to its eradication and to its proper treatment as does this disease, yet how lightly it is often looked upon by many and how often it is not given, even by the medical men, the serious thought and consideration that it requires. My intention in this paper is to show the importance of two great and valuable factors in the treatment of this disease, *i. e.*, the "mode of living" of the patient, and the proper use of the "culture products." In the "mode of living" of the tuberculous patient lies, in my estimation, one of the chief factors in the accomplishment of the proper treatment of tuberculosis. What led me to such a belief are the good and splendid results attained at various sanitariums (regardless of climatic conditions), and also the fact that the original inhabitants of mountainous and climatic regions who commit errors in their mode of living, often contract the disease though they be in a proper climate—besides the most important lesson that I have unfortunately experienced when I myself fell a victim to this most unsparring affliction. Having gone to Asheville (the climatic resort "en vogue" at the present day), I found there a large field for my

observation. There I came in contact with patients from all classes of society and following all methods of treatment. Some using the too frequent and faulty method of being treated through correspondence with their family physician; some residing at sanitariums; some remaining at their boarding houses under the supervision of a specialist, who demands a strict and special mode of living and who generally uses one of the "culture products." Some following no treatment whatsoever and "roughing it out," as they will say. What struck me as the most evident fact was that those patients receiving treatment at sanitariums and from specialists, were doing much better, and curing faster, than those who were "roughing it out" or using their own faulty suggestions of treatment. This latter fact was so striking and evident that it plainly showed me that in obtaining a cure for tuberculosis it required more than climate alone and that "roughing it out" was not free from evil results, and that it was not always to be advised. Yet how often we advise our patients to "go to the mountains and rough it out," and this with the full belief that we have done justice to these patients. Not a moment do we stop to consider the condition of the patients and their ignorance to their taking the proper care of themselves. We rely entirely on the climate, and leave our patients free to commit all indiscretions contrary to their proper treatment. Too much confidence is placed in climate alone. When we tell our patients to leave for some climatic resort we should bear in mind that, if these patients be left alone to their own suggestions and supervision, that they will commit errors over errors in their "mode of living" and, as says one of the leading specialists of the country, "better that such patients be left at home without the benefit of climate than to wander to some strange country without the proper management and care."

Let us see what are the chief benefits derived from climate or rather what are the requirements for an ideal climate—First, a climate is valuable as it allows an out-of-door life, and, further, as its atmosphere is free from exhalation bacteria and vitiating gases resulting from decay of organic matter. Second, the diminished atmospheric pressure upon the circulation. Third, the advantage of air free from chemical irritants, dust, smoke, etc. Fourth, the benefit derived from relatively dry air.

Now, can all these requirements be present and all combined at the same time and at all seasons of the year? No! It is utterly impossible for these four conditions to be present and all combined to the same degree. I have spent close to a year in that most beautiful range of Appalachian Mountains, and I was disappointed in seeing that there neither were combined all the requirements for an ideal climate. Yet, the tuberculous do well over there, provided they follow the proper mode of life. Now, being of more recent years the belief in an immune and curative climate has given way to the more rational explanation of the observed benefits derived from sojourn at various health resorts and considering the fact that only the minority of patients have the necessary funds and opportunity to sojourn and take treatment in any private sanitarium resort: you will agree with me that something must be done for the poor ill-fated victims who are forced to remain at home, at present, and until the day when a State Sanitarium will be erected for the treatment of consumptives, those who sicken with consumption and recover or die from it at home, must depend in the main upon the assistance of the family physician. Are these physicians doing the proper thing for such cases? Are such cases having as good a chance for their lives as their circumstances and surroundings make it possible? I think it is only fair to answer these questions in the negative. Physicians are too often careless as to the details of hygienic management on which the life or death of the patient depends. Some seem never to have learned that benefit can come of such measures. Most of such patients have no carefully ordered hygienic management, except that which they advise themselves. The latter is generally faulty and more harmful than beneficial. They are given some medicine, creosote, cod liver oil, or such, usually. They are admonished to cut down or stop their work, but in an empirical or unscientific way. Every patient should receive from his physician a carefully prepared schedule, written, if necessary. It should cover all hours of rest; how to do it; the methods of rest out of doors; the kind of room to sleep in; the regulation of exercise; the way to be clothed; the diet to follow; the number of meals daily, and the management of amusement for mental tranquility. How many cases in a hundred ever have such attention? Yet the life of many tuberculous de-

depends on avoiding some indiscretion which such rigid rules might prevent. And it is attention to such rules, gentlemen, that make the remarkable records of sanatoria. Is it impossible to give the average case some fair approach to such efficient services at home? It is better not to believe it. The "Home treatment" and "hygienic treatment" of pulmonary tuberculosis is not one-half as effective as it might be or ought to be. You will agree with me that even though you be in New Orleans, you can have a sufficient supply of pure air, at least sufficiently pure to a degree that will answer all therapeutic purposes. The temperature conditions and sunshine, while less favorable and continuous are nevertheless such that a certain amount of out-of-door life can be had almost any time and during almost all seasons of the year, to as great an extent as is usually obtained by patients at climatic resorts. Only when one has sojourned and observed the conditions of climate in those resorts that he will find the disadvantages of an outdoor life at home, are not so great as it is at first supposed. The primary object is pure air, air in the open and in gentle motion, in preference to air in an enclosed room or dwelling. This is at the reach of all classes and can be benefited by with the least expense. Following the first requirements in regard to the proper "mode of life" for the tuberculous, we must have our patients to remain out of doors most of the time. During the last year, and when under treatment, we would venture the elements and remain out of doors most hours of the day. When too stormy or rainy weather we would remain on the porch, but neither the wind, cold or rain (and this is quite frequent in the Appalachian region of mountains), would imprison us in a closed, ill-ventilated room. True, we were protected by the proper protection or coverings and I assure you that it was not the least disagreeable or unpleasant. By saying that the patient should be out of doors most of the time I do not mean that he should exert himself by long walks, drives and such, but that he should, for a certain period, as says Prof. Knopp, rest in the open air on a steamer chair, in the garden, on the porch or balcony, on the roof or fire escape, near an open window, anywhere, so long that it be in the open air and properly protected. In winter by using a lap robe, storm cap and overcoat, one can remain outside most of the time, though the thermometer be below

zero. I have done it myself with many others, and most patients will do the same only with a little good will. Next in importance in the requirement for the proper mode of life, is rest and the proper management of physical exercise in the open air.

For the first, the ordinary steamer chair or rattan lounge will answer very well. The patient can rest on his porch or gallery and spend most of his time in reading or writing or in various other ways. Rest in this reclining posture proves more beneficial than rest in the sitting posture. We all know the influence of exercise on temperature, and rest is the chief means of preventing the latter. I remember the day when under treatment, where after a walk of ten to fifteen squares my temperature would rise $\frac{1}{2}$ to 1 degree, and after a rest for a quarter or half an hour in the reclining, not in the sitting, posture, it would return to normal. This impressed me very much as to the influence of rest on temperature, and was a warning and lesson to me. Rest also proves most beneficial in those cases where there are marked obstructions in the pulmonary circuit, impeding therefrom the circulation between the right and left heart. In such cases, if exercise is indulged in, in too free and careless a way, the right heart, already overburdened in its function, with the over-coming of impeding obstructions in the lungs, such as: deposits of tubercles in the smaller vessels and capillaries; infiltrations and inflammatory exudates; fibroid and caseous deposits; cavities and pleural adhesions; etc.—the right heart thus tasked to excess in its proper function becomes inadequate to its task and soon shows its inadequacy by failure of its right ventricle. From this failure (of the right ventricle) both the general and lung circulation become impaired, and the general body nutrition soon suffers from these evil effects, which all result from overtaxing the hearts' function, by too free and excessive exercise. Until the vascular deficiencies in the heart's function are compensated by the hypertrophic changes of the vertricle, no exercise, to any excessive degree, should be allowed, and rest should be insisted upon. Only when such compensatory hypertrophy is obtained, and when the heart has overcome the obstructions in the pulmonary circuit, should a moderate and gradual exercise be permitted. The old saying: "take all the exercise you can"—should be abandoned. Much

harm can result from such advice, and very often with permanent evil results. Exercise must be permitted only when all danger of injurious effects is removed. The pulse and temperature are our best guides, in the regulation of exercise. "A quick pulse means a weak heart." So then so long that the pulse becomes fast and weak, we must permit nothing which will debilitate or strain the muscular power of the heart; and, this, we may hope to accomplish by maintaining and increasing the general nutrition; and by allowing no physical exercise in which the heart fails in its power, from overtaxation. Every time that exercise is carried to excess, the pulse shows the effect of heart strain; and we know that some damage has been inflicted, which if repeated, becomes serious, and often permanent.

Cold baths and sponges also prove most beneficial in those cases where a marked rise of temperature is present. The cold bath or sponging will reduce any rise of temperature in a short time, if properly applied. Cold baths, combined with the proper rest, should be our chief weapons in combating fever in pulmonary tuberculosis. That this exercise should be under the constant supervision of the attending physician is of prime importance. The latter must be guided by the condition of the patient, the condition of the heart and pulse and the surrounding locality. Next in importance is the use of cold baths (preferably a morning cold bath). Tepid baths may be used at first for the timid, and gradually taken at lower temperature until the plain cold bath is used. In winter the cold rub will answer very well in most cases. In cold and damp climates the use of these cold baths compensate the diminished evaporation of water from the skin and keep the skin in the best function of activity, thereby preventing internal congestion. Anemia, hemorrhage, sub-normal temperature, acute inflammation, etc., contra-indicate the use of these cold baths. In regard to the diet in tuberculosis I will say that any exclusive dietetic method is manifestly absurd in this disease. All the elements concerning nutrition must be supplied to the organism, and besides the problem of nutrition that which conciliates the appetite and promotes digestion and assimilation must also be looked into. The maintenance of body weight can be best sustained by a careful process of super-alimentation. In the average

patient with a fair stomach this process of super-alimentation gives marvelous results and combined with proper rest and proper exercise will soon show its good effect by a rapid increase in the patient's body weight. Milk and eggs should form the two chief nutriment for the tuberculous. Another important feature in the treatment of the tuberculous is the abstinence from excesses of all alcoholic drinks, and the indulgence in too late hours at night. The tuberculous patient should bar himself as much as possible from all social ranks and remain away from all parties, late suppers, balls, and barrooms. This is to my experience the greatest difficulty in obtaining the proper mode of life amongst the tuberculous. They will agree to take all the medicine you will give them but will with difficulty put aside their various parties and alcoholic drinks. However, we must have them understand the importance of such regulations and tell them that it is just the compliance to such regulations which will be the chief factor in accomplishing a cure in their disease.

This will about end my remarks in regard to the most important features in the proper mode of life for the tuberculous. There is much more to be said upon the subject and much more to be accomplished by it if properly applied. Let us consider now the next important factor in the treatment of tuberculosis, that is, the use of culture products.

Speaking of the use of culture products in the treatment of tuberculosis we must be cognizant of the fact that this new method of treatment, though still in its primary state, has given us sufficient proof of its efficacy to justify its general use in the treatment of this disease. I am of the opinion that all new methods of treatment in combating disease should be weighed carefully and tested thoroughly before acceptance or rejection. But it is hardly fair or just to reject a mode of treatment, although you have never tried it, simply because certain noted men say it is useless, while at the same time other equally noted men are obtaining good results by its use. The splendid reports given by Ambler, Von Ruck, Pottenger and others should convince us that in the use of these culture products we have a strong auxiliary in the treatment of tuberculosis. Let us take a brief review of these culture products. When Prof. Koch, in 1890,

announced to the medical world that he had discovered a lymph which would cure tuberculosis, great hopes were placed by many in this startling announcement. Unfortunately, too much was expected from this discovery. Many were so disappointed in not seeing patients in the last stages of consumption restored to health that they overlooked all the good results that were obtained and without further thought or consideration pronounced it a complete failure. They did not stop to think that this culture product was a new remedy on trial for the first time, and that its proper mode of administration and its uses were to be determined by clinical evidence alone. Now, after several years of observation, both clinically and experimentally we began to realize that by the use of these culture products better results were obtained in the cure of tuberculosis than by any other previous methods of treatment. As we follow the evolution of those culture products, we see that first the tuberculin of Koch—a solution of a mixture of different substances produced by the tubercle bacilli containing in solution both the material of culture media and the products of germ growth—was first used; then, second, a purified culture fluid—tuberculocidin and antiphthisin; then third, a mixture of culture fluid and proteids from the bodies of the bacilli—tuberculinum purificatum (Von Ruck); then, fourth, a solution of those substances produced within the cells of the tubercle bacilli as they develop and without the culture medium—tuberculin T. R. (Koch); then, fifth, a pure watery solution of the bacilli under the name of watery extract of tubercle bacilli is presented to us and of all the culture products yet used it shows itself without question the safest. This latter I have used on myself and others and I am glad to state that I have not once observed the slightest deleterious effects from its proper administration. This watery extract is free from culture fluid and is prepared with such care that we can safely say that in it we have one of the most refined culture products. In a report of 1,000 cases from the Winyah Sanitarium treated with this watery extract of tubercle bacilli only in two cases did alarming reactions occur and this happened at the beginning of the first two months. In neither case did any permanent injury result and both cases are entirely well now. In 1901, before the British Congress of Tuberculosis, Prof. Koch

said, in speaking of the therapeutic use of tuberculin that he has never seen disadvantages occur from its use if properly administered. He felt no doubt of their great value in early cases and said that in advanced cases it is necessary to have the temperature to normal before starting the tuberculin. Goetsch reports 224 cases treated with culture products in 1902, and a cure of 125 cases, the others still remaining under treatment. Ambler reports 106 cases treated with culture products (anti-phthisin) with a cure of 41 per cent. and a report of greatly improved cases of 31 per cent. Pottenger, in a tabulated report published in the *Journal of Tuberculosis* in 1902, gives a cure of 81 per cent. in the first stage and 35 1-10 per cent. in the second stage treated with anti-phthisin and a cure of 94 5-10 per cent. of the first stage cases and 66 6-10 per cent. of second stage cases treated with watery extract of t. b. Pottenger again, in the *Therapeutic Gazette* of March, 1903, gives a collective report of cases treated with culture products, by different leading lung specialists of both continents; giving 51 per cent. as the lowest, and 100 per cent. as the highest percentage of cure, 84 per cent. to 94 per cent. being the average.

Osbourne, speaking of the watery extract of tuberculin bacilli showed the greater advantages which can be derived from its use and speaks of its unmistakable results as seen by both clinical evidence and animal experiments.

For further reports of cases I can but refer you to Dr. Pottenger's article published in the March number of *Therapeutic Gazette*.

I can myself report six cases, treated with culture products:—Four, including myself, are entirely well now, the two others greatly improved, still under treatment.

In what manner these culture products act it is still debatable. Many theories have been offered but none have been permanently accepted. We know, as it has been demonstrated by animal experiment and clinical evidence, that these products produce immunity. Koch, Splangler and others show demonstratively that animals can be immunized by these culture products, so that infection will not take place, even though they receive an injection of virulent bacilli sufficiently strong to kill an ordinary animal. Only at the point of injection does an ulcer form, which yields without any

further extension. Clinical evidence bears out what animal experiments have shown, *i. e.*, that the disease shows less tendency to spread to healthy lung portions when culture products are used and that these patients treated as such, relapse much less frequently than others not treated with culture products. This latter is an important prognostic factor and speaks highly in favor of the use of culture products. Nutulecu says that tuberculin administered in small doses induces a process of disassimilation in the cells, but stimulates them to increased nutritive processes and to gradual elaboration of specific immune bodies which diminish the vitality of the tubercle bacilli and utilize their toxins and proteins. They also value local congestion around the tubercular processes, favoring their encapsulation by sclerotic tissue. Local reaction in the local tuberculous areas may be caused and can be frequently observed with the naked eye in tuberculous infiltration in the larynx, choroid and in lupus, as shown by Landgraf, Rengers, Von Ruck and others. That these culture products act particularly on the outline areas where recent tubercles are present, there is no doubt. That these tubercles will disappear under their use can be easily observed by careful physical examination. We must not expect that these culture products will remove fibroid and caseous deposits, nor can we expect the complete disappearance of cavities and pleural thickening: but if, as shown almost conclusively, we can cause the removal of recent tubercle deposits, we must satisfy ourselves at present with such results, and consider that we have accomplished a great deal in the cure of tuberculosis. The evil effects at first observed during the early years of treatment with these culture products are now attributed to their improper use, and too strong doses. Much smaller doses are now used than previously and by a gradual administration of an increase of dosage none of the evil effects of the preceding years accompanied by a rise of temperature should any of these culture are observed and much better results are obtained. In no cases products be used. Only after the complete reduction of such a high rise of temperature should the use of these culture products be begun. The average duration of treatment varies from four months to a year or more, depending on the stage of the disease and the condition of the patient.

We must not expect to cure in a few weeks, nor in a few months. Tuberculosis is a chronic affection, and thus demands a long course of treatment.

That these "culture products" prove themselves of great value as auxiliaries in the treatment of tuberculosis, there can be no question. Combined with the "proper mode of life," better results should be obtained here, by their use, than by any other previous method of medication. When we carefully study the different statistics giving the percentage of cures from various methods of treatment, we can not fail to see, with evidence, the better results which are derived by the use of "culture products". The climate sanatorium treatment alone gives a percentage of cure varying from 35 per cent. to 50 per cent.;—while, as we see by the latest statistics published, the "culture products" give a cure varying from 41 per cent. to 100 per cent.

That the climate sanatorium treatment alone proves itself beneficial in many cases, there can be no doubt; but, when we consider that only the minority of patients can avail themselves of the benefits of climate sanatorium, we realize the importance of a State sanatorium, and the adoption of a method of treatment at home, which will give these patients a fair chance for their recovery.

CONCLUSION—Perseverance on the part of the patient, as well as that of the attending physician is the chief weapon in the treatment of tuberculosis. One must not expect to be radically cured in a few days or weeks. It must be well understood that this disease is a trying one and that strong moral fortitude is necessary throughout the course of the treatment. That the tuberculous patient should be sent to some mountainous climate without receiving the proper care and supervision of a physician at that climatic resort, I think it is the greatest error that is now committed daily by the medical profession. Such patients, as I have already said, if left alone to their own faulty suggestions will not generally be benefitted by the climate alone, but by committing errors in their mode of living will remove all the benefit which could be obtained by climatic influences. Therefore, let us not tell our patients to "go west and rough it out." Let us direct them to a reputable sanatorium resort or physician and if their financial or pecuniary

circumstances prevent them from sojourning any length of time at any climatic sanatorium resort, I will say, with many others, "better that they be left at home without the benefits of climate than go to some climatic country without the proper care and treatment." With the proper mode of life and the proper use of culture products we should no more feel at loss when consulted by these poor unfortunate victims of the most cruel of all afflictions. Their doom needs not be sealed if fortune has not favored them with the opportunities of some climatic resort, but great encouragement and hope should be given them and thus obtaining their confidence and application to their proper treatment and effecting a cure in many; making good and happy men of many broken-hearted and useless citizens.

DISCUSSION.

DR. LEBEUF thanked Dr. Durel for his excellent paper and particularly for the relation of his personal experience. It was not generally known that the percentage of cure was so great. In the Adirondacks, where he was a few weeks ago, patients were kept out of doors 18 hours of the 24, even in the coldest weather. Serum treatment was not much used there and creosote was the principal therapeutic agent. Supra-alimentation and the use of fats were greatly relied upon.

DR. GUTHRIE had met Dr. Trudeau, of Saranac Lake, a few months ago and the latter had told him that in the Adirondacks they did not use the culture products. The patients slept in tents and in the coldest weather were out in the open air. Great stress was laid on the increased appetite and improved assimilation due to the bracing effect of this outdoor life in a cold, dry climate. In a Baltimore hospital and in large hospitals of other cities tuberculous patients were kept in tents out on the lawn and Dr. Guthrie thought that much could be done by improving the hygiene in our own Charity Hospital in treating tuberculous patients along these lines. Dr. Durel had done great service by pointing out what could be done right here, for it was impracticable for many of our patients to go away.

DR. STORCK had noticed at Bellevue and at a Pennsylvania hospital the use of tents for tuberculous patients. He had remarked

that even after hemorrhage many patients do well. He wished to point out to the advocates of the serum treatment, who lay down the rule that serum therapy should be begun only when the temperature was down, that the reduction of the temperature itself indicated an improvement in the patient and that the prognosis thenceforward was favorable even without the serum. He considered the increased appetite and improved digestion of most importance to the tuberculous patient. Rogge of Paris has proved by post-mortem examination that 50 per cent. of the tuberculous get well.

DR. PERKINS—That many tuberculous patients recover spontaneously was well evinced by the frequent appearance of cicatrices in the lungs at autopsies. Psychological suggestion brought to bear by special interrogation, special care and special diet, did much to improve many patients and this element should not be lost sight of in considering Von Ruck's series of cases at the Charity Hospital. Then, too, a great deal could be accomplished by a doctor of cheerful and optimistic temperament who impressed his patients with the necessity of attention to detail, because improvement was sure to follow, and who did not figuratively throw up his hands when the diagnosis of tuberculosis was made.

DR. OECHSNER inquired as to the importance of sunlight as a factor in the treatment of tuberculosis. This inquiry was brought to mind by the suggestion of DeForest Willard to treat tuberculous joints with direct sunlight, Finsen light, etc. He wished also to know the value of a remark of an Asheville doctor who had said that the climate killed the streptococci, and the serum the bacilli of tuberculosis.

DR. PARHAM—Von Ruck's cases here at the Charity Hospital had not been selected and most of the members of the Commission appointed to investigate the question had been convinced that some good, at least, had been due directly to the antiphthisin. Of course now antiphthisin had been supplanted even in Von Ruck's hands by later culture products. A number of his patients had gone to Asheville and returned well and now two doctors (Durel and Kilbourne) had returned with most favorable and enthusiastic reports of the treatment. While regarding highly the value of the culture products, Dr. Parham was not inclined to minimize the import-

ance of proper climatic environment and in this connection he quoted the case of Keating who had returned temporarily to unfavorable surroundings after a most advantageous sojourn in the West and who had contracted pneumonia and died.

DR. MATAS regarded Dr. Durel's paper as a most opportune and interesting contribution. He was convinced that the views held on the curability of tuberculosis by the mass of the profession were entirely too pessimistic. He also believed that the time was ripe for a thorough review of the tuberculosis question and hoped that the progress recently accomplished in this all-absorbing field of research would be made the subject of a critical paper by some member of the Society competent to discuss its latest phases. That we were on the eve of great advances in the specific prophylaxis and treatment of tuberculosis was shown by the almost simultaneous appearance of the inspiring and encouraging reports which had recently come to us from Maragliano, of Genoa, Trudeau, of Saranac, DeSchweinitz, of Washington, Von Behring, and from Koch's laboratory in Berlin, all of which were rich in promise of an early consummation of that great desideratum—an efficient prophylactic if not actual curative treatment of tuberculosis.

Reference had been made to the value of culture products in the treatment of tuberculosis and he wished to express his confidence, based upon personal observation, in the value of this mode of treatment. He had been especially impressed by the remarkable results obtained by Dr. Von Ruck with his watery extract of the bacillus tuberculosis in a considerable number of patients who had been treated by this observer at his sanitarium in Asheville. In several of these cases, all typical of pulmonary and laryngeal tuberculosis, the climatic hygienic and therapeutic methods had been tried by skillful practitioners without success; improvement and symptomatic cure had followed only when the culture products (watery extract) had been added to the treatment. So often had this experience been repeated under his personal observation in recent years, that he was forced to the conclusion that the marked improvement in the condition of the patients could be attributed to no other agency but that of the culture products which had been added to the usual climatic and most approved hygienic treatment. Very recently, he had an opportunity to visit Dr. Von

Ruck's sanitarium in Asheville and to inspect his laboratory with some care, and, while he did not profess to speak with authority as a bacteriologist, he was impressed with the intelligence, care and method exercised in the preparation of the watery extract. While he (Dr. M.) was not prepared at this time to discuss the mode of action of this product, whether specific or otherwise, he could not avoid, as a clinician, the conclusion, that this substance, as used by Dr. Von Ruck, had been followed in many serious and even apparently hopeless cases, by the most beneficial results. While no one could claim at the present time that culture products could be relied upon as curative agents in all cases, there could be no question that in a great many instances they (this watery extract especially), appeared to be a most valuable auxilliary to the more classical and accepted modes of treatment.

DR. GUTHRIE asked Dr. Durel what was the technic of the administration of the watery extract of the bacilli and what was the dosage.

DR. DUREL, in reply to Dr. LeBeuf's remarks about the Adirondacks, said that there they obtained only 50 per cent. recoveries in primary cases. Dr. Trudeau did use culture products, as shown by the quotation as to his experience in the *Therapeutic Gazette*. In reply to Dr. Guthrie's question as to dosage and technic, he would say that three solutions were used. Solution No. 1 is first used. Of this 1-10 *c. c.* is given ever day and then increased to 1 *c. c.* Then solution No. 20 is used and 1-10 *c. c.* also given every day and increased to 1 *c. c.* Finally solution No. 100 is used, of which 1-40 to 1-20 *c. c.* is used, increased according to the condition of the patient. Constant and vigilant supervision was essential; the temperature should be taken every two hours and the lungs should be frequently and systematically examined, in order to observe the reaction there. We should not judge of the value of culture products from the results of Von Ruck's labors at the Charity Hospital, as there the most adverse conditions had to be met and the experiment had been kept up for a very short time. As to Dr. Storck's suggestion about restricting the use of the culture products to non-febrile cases, he said that these products could be used in febrile cases, but these were the most unfavorable and in order to introduce the use of culture products it would be

better to restrict their use to non-febrile cases where we might expect better results. Hemorrhage was not a favorable symptom, but generally indicated disintegration. It could be considered favorable only in the sense that it demonstrated to a patient that he was tuberculous when he did not know it before and would therefore lead him to proper measures looking to his cure. In answer to Dr. Oechsner, Dr. Durel said that Dr. Von Ruck had not used special light apparatus; he did not think satisfactory results could be obtained therefrom. The watery extract of the bacilli tuberculosis did not act directly on the tubercle bacilli, but produced immunity; how we did not know. As a further reason for treating only non-febrile cases with the watery extract, Dr. Durel said that as the dosage of the product was gauged by the temperature (*i. e.*, the amount of reaction,) it was desirable to begin the treatment only when the temperature was normal in order that we might have a more accurate and reliable index. In closing he insisted on accurate, exact and painstaking physical diagnosis. It was important above all to make early diagnoses in the tuberculous.

DR. RUDOLPH MATAS then read a paper on

A Case of Puerperal Inversion of the Uterus of Six Weeks' Standing Completely Reduced in One Night by the Colpeurynter; with Remarks.

Mrs. J. G. G., of Biloxi. Miss., aet. 27 years; was admitted to the Touro Infirmary on the night of Aug. 17th, 1903.

The following history was obtained by Dr. G. W. F. Rembert, the resident physician in charge of the service.

She had been married three months when the conception took place. The pregnancy was marked by no special abnormalities. Her physician Dr. B——, stated that she had been delivered six weeks prior to admission of a robust, healthy male infant. At 4 A. M. of the day of labor, the patient awoke with violent cramps in the abdomen and had four stools in rapid succession. About 2 P. M. of the same day, the bag of waters ruptured while the patient was sitting in a chair. The patient went to bed at 3 P. M. and the pains continued until 6 P. M., when the baby was born. The presentation was normal, occipital (?) and no instruments were used.

Chloroform was given but consciousness was preserved throughout. When the baby was born the patient was aware of a feeling "as if something had given way and everything was coming out." The placenta and membranes were expelled simultaneously with the baby, in a final, violent, expulsive effort, and the delivery was followed by a profuse post-partum hemorrhage which left the patient in an extremely ex-sanguinated condition. She continued to bleed persistently, and, at times, profusely, during the six weeks following delivery, in spite of the tampons applied by the attending physician. In view of the increasing exhaustion and anemia, the patient was brought to the Touro Infirmary for further treatment. I first examined her on the morning of August 18, and found a large bleeding, pyriform body which completely filled the vagina. This was at once recognized as the completely inverted uterus undergoing involution. The entire uterus was turned inside out except a narrow edge of the cervix which could be felt as a distinct collar which tightly constricted the pedicle of the inverted mass. The uterine mucosa presented a red, angry and strangulated appearance; the entire uterine surface was edematous and bled freely at the least touch. The patient was strikingly pale, waxy, almost cadaverous in color; the pulse was feeble and extremely variable.

In addition to her exhausted condition, she was extremely nervous and sensitive, and, in consequence, the examination could be conducted only with great difficulty and much persuasion. I decided it was useless to make any formal attempt at reposition and reduction until all bleeding had been checked. Fortunately, hemostasis was readily obtained after a thorough vaginal irrigation of the exposed uterus with very hot lysol solution, 2%, followed by swabbing the uterus freely with hydrogen peroxid. The patient was then placed in the knee-chest position and the uterus, which was partly prolapsed, was replaced and the mucosa treated freely by a local application of 1 to 2,000 adrenalin solution (P. D. & Co.). This produced some pallor of the surface and diminished the general capillary bleeding which oozed from all parts of the exposed surface of the uterine body. After this change had been noticed, it appeared as if the volume of the uterus had been perceptibly reduced. A large cotton swab, soaked in this solution, was

kept in contact with the surface for some time and, when removed, the mucosa scarcely bled. Then with the double object of intensifying the astringent effect of the adrenalin and to further reduce the size of the congested and edematous organ, as a preliminary to reduction, I applied a large sachet or bag, made of iodoform gauze loosely filled with compound alum powder (Squibb's) and adjusted it to the fundus. The vagina, now fully distended by the knee-chest position, was systematically and carefully packed with strips of iodoform gauze so as to exercise equable pressure on all parts of the exposed uterus. This pack was allowed to remain 24 hours; when it was removed hemostasis was complete; the uterine surface was dry, pale and ex-sanguinated. The size of the inverted body was very much diminished, though the inversion remained unreduced. After a hot douche, followed by another application of adrenalin and peroxid, the patient was again placed in the knee-chest position and a layer of iodoform gauze was packed over the uterus, after which a large oval colpeurynter (Champetier de Ribes' bag) was introduced into the vagina and inflated with a Davidson syringe until the vaginal walls were fully distended. The distended bag when in situ, not only pressed the fundus of the inverted uterus upwards into the pelvis but also kept up a continuous traction on the vaginal segment of the cervix. This remained in place all night, and when it was removed, next morning, it was found that the pyriform body had disappeared and that the inversion had been completely reduced. By bimanual palpation, the large, sub-involuted uterus could now be recognized in its proper place in the pelvis. During the night, the patient had complained of severe cramp-like pains which had completely ceased in the morning. Evidently, the reduction had been affected at that time. While in the knee-chest position, it was seen that the uterus and vagina formed one continuous cavity; the cervix was continuous with the vaginal fornices and was enormously dilated. The fundus of the uterus formed a deep dome-shaped cul de sac which capped the vagina. It was evident also that a laceration of the cervix had occurred during the delivery which favored the inversion of the uterus. The vaginal outlet and perineum were also torn.

To prevent relapse, the vagina and uterine cavity were now packed again with iodoform gauze and the tampon was removed

every twenty-four hours, then every 48 hours, gradually lessening the amount of the pack, until two weeks after the reduction of the inversion, when it was discontinued altogether.

As the uterus contracted and assumed its normal dimensions, all tendency to bleeding ceased. The general condition of the patient improved day by day. On September 9, under chloroform, the cervical tear was closed by trachelorrhaphy and the perineal laceration was repaired by Reed's operation. The patient was discharged in excellent condition, fully convalescent, September 24.

REMARKS.—The preceding observation is interesting not only because it illustrates a rare and always dangerous complication of parturition, but chiefly because it demonstrates the value of careful preliminary local treatment in facilitating the reduction of an inversion of comparatively long standing. As to the rarity of this complication, the writer's experience confirms that of the classical authorities. In 22 years of active practice, only two cases, including the present observation, have come under his care. Biegel (quoted by Pozzi) states that inversion occurs once in 190,000 deliveries; Madden (Dublin) estimates the proportion as once in 190,833 labors; Boeckmann (St. Petersburg) says once in 250,000 confinements. Williams fifty per cent. of the patients are primiparæ. Though inversion of the uterus may result from other causes than parturition, labor is the cause in 450 out of 500 cases: the remaining 50 are almost entirely due to polypus. (Richelot).

According to Crosse (*Am. Text-Book of Obs.* 1895), one-third of the women with puerperal inversion die immediately or within a month. The cause of death is chiefly hemorrhage and shock: more rarely death may be caused by strangulation of a loop of bowel in the inverted uterus; from peritonitis; from puerperal infection or from gangrenous inflammation of the uterus caused by strangulation. Boeckmann estimates the mortality at 14%; G. Vogel (*Zeitsch. f. Geburt. u. Gynakol. Bd. XLIII Hft. 3; 1900*), in 100 collected cases found the mortality to be 22%, chiefly from hemorrhage and collapse. But even the most favorable statistics prove that inversion of the uterus is one of the gravest accidents of labor. Spontaneous reduction of the uterus has occasionally taken place. Schutz (1890, *Am. Text-Book of Obs.*) states that 10 such cases are known. The treatment varies according to

whether the case is recent or chronic. A recent case is one which is observed within the period of involution, about six weeks after labor; a chronic case is one observed after involution has occurred. Immediately after delivery, reduction by taxis and bimanual manipulation is comparatively simple and effective. After labor, the difficulties of reduction increase in direct ratio with the time that has elapsed after the accident; hence the great importance of attempting reduction immediately after the occurrence of the inversion.

In attempting the reduction of puerperal inversion at the time when the accident has occurred, the placenta must be rapidly detached if still adherent, and taxis should be resorted to at once firmly and yet gently enough to avoid perforation of the uterine wall. Of the numerous methods recommended, those which depend solely upon bimanual manipulation are to be preferred (Emmett's, Noegerath's, Hirst's, Courty's); each one of these involves a special suggestion, the distinctive points of each combined to suit the conditions and requirements of the case. Thus: (1) Emmett's plan ⁽¹⁾ may be adopted first, viz.:—the entire hand is introduced into the vagina. The fingers and thumb surround the isthmus uteri within the cervical collar making pressure upon the fundus with the palm of the hand and counter-pressure within the cervical ring, above, through the abdominal walls. (2). If the previous manipulation fail, efforts to reduce the cornua separately, by making the middle finger and thumb, first, upon one horn then upon the other, and after reducing the horn, replacing the fundus, counter-pressure being made upon the cervix from above, may be attempted as Noegerath ⁽²⁾ suggests. (3). Making pressure with the finger tips of one hand against the lateral wall of the lower uterine segment, in a direction upwards and forwards while an

(1). Dr. E. S. Lewis, of this city, reported a case of inversion of the uterus which he successfully reduced by Emmett's method. (N. O. MEDICAL AND SURGICAL JOURNAL, 1879-80; n. s. VII, 456-459.); and another case of fifteen months' standing in which complete reduction was obtained by combined manipulation and sustained elastic pressure with a colpeurynter. The inversion yielded gradually but completely after a continuous treatment of eighteen days' duration during which a general anesthetic was administered several times and the attempts at reduction were made by alternating manipulation with elastic pressure (*Ibid.*, 860-862.)

Another and most remarkable case is reported by Dr. E. Souchon, also of our society, in which a puerperal inversion of three years' standing was reduced in twenty minutes by Emmett's method (N. O. MEDICAL AND SURGICAL JOURNAL, 1885-6; n. s. XIII, 270-273.) in this case a general anesthetic was administered and the resisting constriction at the cervical neck yielded suddenly and unexpectedly after previous manipulation had failed to produce an impression. All of these cases made uninterrupted recoveries.

(2.) A. Pettit, of Elizabeth, N. J., reports a case of inversion of the uterus reduced, eighteen hours after its occurrence, by Noegerath's method, in twenty minutes. *N. Y. Medical Record*, 1887, XXXI, 126.

assistant with both hands presses upon the cervical ring from above and endeavors to dilate it by traction in opposed direction, through the abdominal walls, is recommended by Barton Cooke Hirst, who has succeeded in reducing five cases of inversion in this manner. (4). Inserting two fingers into the rectum and making traction upon the cervical ring while pressure is applied with the other hand to the fundus, (Coutry.) (5). In a case reported by J. H. Tate (3) of Cincinnati he succeeded in reducing an inversion of forty years' standing in half an hour, by inserting two fingers into the rectum, the forefinger of the other hand into the bladder through a dilated urethra, making traction upon the cervical ring while the two thumbs pressed upon the uterine fundus.

These methods should succeed alone, or in succession, with anesthesia, in reducing every case at the time of its occurrence. In the treatment of inversion sometime after its occurrence (weeks; months or years), we find that the suggestions multiply as the difficulties increase, as is attested by the large mass of bibliographic references in the vast literature of this subject. These procedures may be roughly classified into: (1) Rapid, bloodless, manual methods of reposition under anesthesia; (2) Long continued pressure methods of reposition with mechanical aids and tampons; (3) Combined mechanical and operative methods; and (4) Purely operative methods including anterior and posterior hysterotomy with colpotomy; partial hysterectomy (amputation of the inverted uterine body) and complete vaginal hysterectomy.

Of the aided methods, in which the reduction is affected gradually, those which endeavor to reduce the inversion by long continued pressure with an air bag or colpeurynter (Gariel's, Braun's, Champetier de Ribes) as originally used by Tyler Smith (1858), or by systematic iodoform gauze tamponade alone, (Pozzi), or combined with the colpeurynter (Kocks, Berlin 1880), evidently are the safest, most practical and best adapted to the work of the general practitioner. By these bloodless pressure methods, reductions have been effected 12. 15 and even 40 years after the occurrence of the accident. (*vide* P. Delageniere, *Chirurgie de l'uterus* 1898). Thomas, Barnes, Duncan. Aveling, Tait, speak in

(3.) J. H. Tate, Inverted Uterus of Forty Years' Standing, reduced in half an hour; a New Method. *Cincinnati Lancet and Obs.* 1878, n. s. XXI, 250-252.

praise of a cup and stem pessary fastened to a belt by elastic bands. Pozzi considers it a dangerous instrument and one likely to cause sloughing; he decidedly prefers the systematic tamponade of the vagina with iodoform gauze as the safest and most reliable method, and in this he is supported by the opinion of a large number of contemporary writers. In comparatively recent cases, the preliminary ischemia and depleting preparatory treatment obtained by the topical application of adrenalin solution, peroxide of hydrogen and an astringent powder contained in a gauze bag, as practiced in this case, is obviously advantageous, not only in arresting hemorrhage, but in reducing the volume of the inverted organ. This preparatory treatment should be given a fair trial before resorting to more radical procedures. The importance of the knee-chest position in applying an effective tampon should not be forgotten. The importance of trying long continued pressure as a means of reduction cannot be exaggerated, especially when dealing with cases in the child-bearing period. I am prompted to insist on this point because I find that it is referred to only in a casual way and rather indifferently by some authors. In the latest gynecology, that most admirable text-book just issued (Sept., 1903.) by Dr. Barton Cooke Hirst, the method of reduction by the colpeurynter is referred to in the following discouraging fashion: "Colpeurynters distended with water or air have their advocates. This method, when it succeeds at all, requires at least a week, perhaps a month; the patient experiences great pain and cannot endure the pressure for more than five or six hours at a time. There is likely to be high fever and there may be fatal infection, etc." Evidently such a statement of the case is not sustained by the present and numerous other experiences. When an air bag is used, it should be introduced empty and then, in the knee-chest position, distended as much as possible. Its action seems to be exerted in many ways: By direct pressure upon the tumor it diminishes its volume; its prolonged contact with the cervix serves to loosen it; and finally the presence of the pessary may excite uterine contractions which work from below upwards and help in the reduction, (Pozzi).

If after a reasonable and systematic trial of manual pressure, the tampon and the colpeurynter, no result is obtained, surgical

methods must be considered and the choice of operation should depend largely upon whether the patient is still in the child-bearing period or has lapsed beyond the menopause. As long as the possibility of normal conception and pregnancy exists, hysterectomy, whether partial or complete, cannot be fairly considered. Of the numerous conservative operations suggested, that of O. Kustner (1893) or its modification, by A. F. Kehrer and Duret appears to be the most rational, safe and effective. Kustner's operation essentially consists in making a primary posterior colpotomy into the Douglass cul de sac by which the collar of the inversion and its relations are freely explored by direct intraperitoneal palpation. After detaching any adhesions that might exist, an incision is made through the constricting collar in the posterior median line and efforts are made at reduction. If the cervical incision is not sufficient, it is prolonged into the uterus, cutting through the whole thickness of the posterior wall of the organ to the peritoneum, always in the midline, and efforts are made to reduce the inversion. Usually this is effected without advancing the section to the fundus, but if necessary this should be done. After the inversion has been reduced, it is easy to bring the uterus out again into the vagina through the incision in the Douglass cul de sac, thus facilitating the closure of the uterine incision, by interrupted suture, on the peritoneal side. When the suture is completed the uterus is replaced in the pelvic cavity and the incision in the Douglass cul de sac is closed, or, if there is much oozing, is drained with gauze. This is a comparatively simple operation and would appear to meet the good opinion in which it is held by all those who have tried it and who have devoted some attention to the subject. To the experienced operator, Kehrer's operation may appeal as the preferable method as it avoids all possible pre-disposition to retroflexion which might follow a posterior uterine incision. In this modification, the anterior vaginal cul de sac is opened and the uterus is detached from the bladder, after which the cervical collar and anterior wall of the uterus are divided by an anterior median incision to whatever extent it may be necessary in order to reduce the uterus. The succeeding steps of the operation are the same as those followed in Kustner's procedure. The only objection is the possible risk or injuring the bladder which would not be

great in the hands of an experienced operator. The abdominal methods of reposition in which efforts are made to dilate the neck of the inversion from above by the use of dilators, (Gaillard Thomas, Beaudoin) are not only more difficult and less effective but far more dangerous and have been practically discarded in favor of the vaginal methods previously described. In old women, or after the menopause, when involution is complete, the projecting part of the uterus may be excised (partial hysterectomy) under local anesthesia, after a preliminary prophylactic hemostasis of the pedicle by elastic ligature, wire snare, etc., after which the section is closed by suture of the stump. In other cases it may be found more simple and satisfactory to perform a complete vaginal hysterectomy on classical lines.

To sum up the indications we would say: At the time of delivery, a puerperal inversion should be reduced at once (bimanual method). In later cases: bimanual reduction, persistent tamponade in the knee-chest position after preliminary astringent treatment; then the colpeurynter; alone, or combined with the gauze tampon. If after a fair trial, these methods fail, in the child-bearing age, operate by Kustner's or Kehrer's method; in older women, after menopause: partial or complete hysterectomy.

In every case, whether young or old, try the bloodless pressure methods first.

MEETING OF SEPTEMBER 26, 1903.

DR. GRANER, President, in the Chair.

RELATION OF CASES.

DR. LAZARD said that he had treated, two or three months ago, a very interesting condition and one upon which he could find little or no literature. His case was one of *Fungus of the Testis* that occurred in a cooper, 27 years old, who was an inmate of his ward at the Charity Hospital. From April to June the case was treated for a chancroidal condition of the glans of the penis, from which he was finally cured, leaving a much scarred surface of the region. In the meantime the patient contracted an ulceration of the scrotum which afterwards attacked the testis, ending in a

protrusion of the organ. When the patient returned to the ward the testis was three-quarters out and one-quarter in, presenting a blackish-white and ugly looking appearance. The scrotum around this mass was hard and the immediate mass was surrounded by cicatricial bands. Under cocain anesthesia and by means of the scalpel the blackish-white layers were peeled off the testis as one would strip an orange; through this method of procedure the mass was reduced to half its size and the cicatricial collar, which held the organ out, was removed when it was brought back into the scrotum and a few sutures employed to retain it. A small drain was left in for a short while. He had seen the patient two weeks ago and though the testicle was smaller than normal he thought probably that the organ would regain its functional activity. His first intention was to remove the organ, but attempted conservatism was justified by the result. He would like to know had any other member seen a similar case.

DR. STORCK said that he had seen quite a large number of cases of *advanced pulmonary phthisis in which there existed vitiligo*. He had noticed 32 cases at the Charity Hospital in which this skin lesion was present with those suffering from advanced phthisis. Dr. Dyer told him he thought it was due to malnutrition of the skin.

DR. GESSNER had seen vitiligo occur in some tuberculous cases that he had operated upon in his surgical ward.

DR. BLUM related the case of a woman whom he treated. When he was called he found the patient suffering from great abdominal pain. The abdominal walls were rigid and hard and great tenderness was elicited on both sides of the lower portion of the abdomen when pressure was made. She had a temperature of 102° and pulse 130. Vaginal examination revealed only tenderness of the adnexa. The following evening the patient was a little worse, the temperature was high and the pulse faster and he thought very probably that the case was one of either malarial toxemia or infected uterus. Quinin was administered, also 10 c. c. of Mulford antistreptococcic serum. On the next day the patient was extremely ill, suffering from great pain until she claimed that something had burst within her from which time the pain subsided. The following day the condition was even worse, the pulse being almost im-

perceptible and the patient was in a state of collapse. She was freely stimulated and the antistreptococcic serum continued at intervals. On the day following the patient was better, at which time he found a soft fluctuating mass in the right side of the uterus, which suggested to him the possibility of tubular pregnancy, but since this time the soft mass has entirely disappeared, which, to his mind, eliminated the possibility of ectopic gestation. He had been at a loss for an accurate diagnosis, unless it had been a violent salpingitis, with exudations.

DR. THEARD displayed a small celluloid thermometer shield which could be slipped over the thermometer, thereby protecting the thermometer from becoming infected. After the temperature had been taken the thermometer could be removed from its shield and replaced in its case in a dry and clean condition. The shields are worth about \$8.00 per 1,000 and he thought the device was an excellent one to avoid the contamination of the thermometer, especially in cases of tuberculosis or syphilis. He thought it a good thing and worth a trial.

DR. BARNETT said he had received some of these shields some months ago and thought they were a good device, for it was unquestionable that the thermometer was a dangerous instrument, through which infection could be transmitted.

DR. NELKEN said that the axilla was preferable to the mouth in taking temperature because the readings were more reliable, this region not being subjected to external influence as was the mouth, and because there was no danger of conveying infection. The only inconvenience was the somewhat longer time which was necessary to obtain a correct registering.

DR. BARNETT believed that surface temperature was very uncertain and that the axilla could not be relied upon.

DR. POTHIER said that in the Latin countries the temperature was always taken from the axilla, the Spanish and French never using the thermometer in the mouth.

DR. THEARD stated that in smallpox particularly was the shield that he had mentioned of value, whether the temperature be taken in the mouth or the axilla.

DR. GESSNER wished to know what the members thought of using *tuberculin as an aid in making an early diagnosis of tuber-*

culosis. The early diagnosis of pulmonary tuberculosis was in some cases a most difficult undertaking and the profession was sorely in need of some reliable aid in coming to a positive conclusion. He noted that Dr. Carl von Ruck, of Asheville, claims that when the bacillus appears in the sputum the case is advanced, and he believed with Dr. von Ruck that we should be able to make a diagnosis prior to the finding of the bacilli. The use of tuberculin seemed to him a valuable help in reaching a positive diagnosis. Dr. von Ruck says that when a reaction fails to take place from the use of tuberculin, it is strong evidence against the existence of tuberculosis. Dr. Gessner had recently used tuberculin in a case, giving a $\frac{1}{2}$ c. c. hypodermically, after previously making observations of the temperature for two days. No reaction followed this dose. Seven days after the first injection, 1 c. c. was administered without any reaction. As no reaction occurred, he felt quite sure that his patient was not tuberculous. There were cases that gave the reaction where tuberculosis did not exist, but these were rare. He thought it a good thing to use and would like other members of the profession to employ it with a view of establishing its value on a larger experience.

DR. STORCK said that, in regard to making an early diagnosis in tuberculosis, his plan had been to consider any case which presented prolonged expiration, harsh breathing and temperature, as one of incipient pulmonary tuberculosis and to treat it accordingly. He asked the question, "Was tuberculin free from danger" ?

DR. NELKEN believed with Dr. Storck that tuberculin as a diagnostic measure was not free from danger. Well authenticated cases were on record where its use had resulted in the lighting up of a latent infection. He would hesitate to make a diagnosis of incipient lung tuberculosis when the bacilli were absent from the expectoration. He had seen some very clever diagnosticians go astray when relying solely on the physical signs. He believed that the cardinal points in the diagnosis of early tuberculosis were—a slight rise of temperature in the afternoon, falling to normal or subnormal at night and the presence of Koch's bacillus in the expectoration. Sometimes several examinations are necessary before they are found, but, in his opinion, the diagnosis should be guarded until they are.

DR. THEARD said that the question in his mind was, "What do we call incipient tuberculosis" ? He took the position that the moment the bacilli were found it was no longer incipient.

DR. GESSNER said that he also believed it was the duty of the physician to cure, but it was his first duty to make a diagnosis. Judging from Dr. von Ruck's experience he was inclined to look upon tuberculin as a most valuable aid in making a diagnosis of tuberculosis and practically free from danger.

DR. STORCK said that Dr. S. A. Knopf, one of the recognized authorities, looked upon tuberculin as a dangerous agent.

Miscellany.

THE STATE BOARD OF MEDICAL EXAMINERS passed twenty-two of thirty applicants on October 28. Three were negroes. The Board also examined and passed three midwives, two whites and one negro. The white candidates who passed succesfully were: Drs. D. H. Trepagnier, G. W. Groetsch, G. D. Grimes, G. H. Tichenor, Jr., Wilburn Lassiter, T. F. Wickliffe, Zachary J. Francez, T. H. Madden, J. B. Parker, H. L. Lemoine, E. G. Cather, N. J. Milstead, E. A. Kleinpeter, A. M. Hughes, W. T. Ellison, R. Strother, S. G. Alexander, G. W. Worthington and H. A. Eldredge. The three negroes were: J. A. Barnes, B. F. Easter and W. C. Hayes. The names of the white midwives are: Mrs. Eva Blakeslee and Miss Josephine Pulley, of 4846 Camp street. That of the negress is Eliza James.

This was the fall examination of the Board. The next examination will be held May 7 and 8, 1904. There were present at last night's meeting all the members of the Board, which is composed of Dr. A. F. Barrow, St. Francisville, La., president; Dr. F. M. Thornhill, Arcadia, La., vice president; Dr. E. L. McGehee, New Orleans; Dr. C. D. Simmons, Baton Rouge, and Dr. Felix A. Larue, of 624 Gravier street, New Orleans, secretary-treasurer.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Medical Schools Open.

The year of work has begun at our New Orleans schools, and the prospect is excellent for successful sessions at both the Tulane Medical Department and the New Orleans Polyclinic.

We have only to point to the pages of the JOURNAL for the past few years to indicate why this should always be a city for medical education. The material for study is always more than enough, and the teaching is planned so that the actual diseases are witnessed and treated.

There must come an extra pulse beat of pride to the local profession when the strides of the past few years appear to them. From comparative inertia, a routine of dignified and self-satisfied habit of practice, there has arisen an acute and progressive interest in all things medical.

The meeting of the A. M. A. in New Orleans last May found an organized profession in both the local and State bodies, keen to good work and already possessing a record. Spite of the attempts at comparison, Louisiana showed that on her own responsibility, she had systematized the profession with more success than had other States under the rule.

The stimulus of that meeting has shown itself and the immediate result has been the crystallization of the already organized State Society, and, under the present energetic president and secretary, the rapid adherence of one parish after another in systematically chartered bodies.

The objective is patent: a higher professional standard, a better *entente* among the individuals composing it, a protection of commu-

nity interests and a resultant educational benefit reflected in a public interest in the medical guild.

With all this the educational institutions have had much to do, for in these are nested the young ideas and, though born quietly, they are generated in the lecture room, laboratory and hospital wards, and the seed is sown every day.

In the broad field of honest competition we forget the starting point, but when the bustle of each new year of college work starts the thought, we should always give it room and give it heed. We owe much to our educational institutions and with the profession behind them they should grow in credit and in honor, for the good work done, from which each man in the medical profession of the State has gathered and will gather continued profit.

The Scourge in Texas.

We feel a profound sympathy for the Texas cities of Laredo and San Antonio and wish to express it here. While we have been congratulating our Southern States on the recent immunity from the dreaded fever, it has slipped in at a side door and, in spite of care and judgment, it has spread.

How or why this has happened we shall not discuss, because the history of every epidemic has to be written after it is over and because we have suffered too much ill-advised criticism ourselves to venture opinions when disease stalks rampant.

This visitation more than ever reveals the common interests of the Gulf States, and argues a closer bond of unity in protection against disease and in furtherance of future provisions to that end.

The Toy Pistol.

The resolutions recently passed by the Mississippi Valley Medical Association, taking a stand against the toy pistol, should be a reminder to the profession of the dangers of that little instrument, and should stimulate us to renewed and emphatic action towards the elimination of that menace to children during times of festivity. The resolutions are as follows:

“In view of the fact that more than 400 deaths occurred from tetanus following the Fourth of July celebration of 1903, the great majority of which could have been prevented had proper precautions been taken;

Resolved, That this association wage: The enforcement of existing laws regarding the sale of toy pistols and other dangerous toys.

“The enactment of laws by the nation, states and municipalities prohibiting the manufacture and sale of toy pistols, blank cartridges, dynamite canes and caps, cannon crackers, etc.

“The open treatment of all wounds, however insignificant in which, from the nature of environment there is any risk of tetanus.

“The immediate use of tetanus antitoxin in all cases of Fourth of July wounds, or wounds received in barnyards, gardens or other places where tetanus infection is likely to occur.

“As a forlorn hope the injection of tetanic antitoxin after tetanus symptoms have occurred.”

The above taken as suggestions to the profession, as well as to the public, are admirable. The moment for this agitation is, with us, timely, as, here in the South, instead of being about the Fourth of July that pistols and other fireworks are in the hands of children, it is about the Christmas and New Year holidays. We believe that the only possible good to be done through legislation is by the prohibition of the manufacture and sale of these articles, as the resolutions state, because the ordinances now enacted, providing simply against the firing of said things is bound in the future, as well as in the past, to lack enforcement. Right here, in New Orleans, even if we had an adequate police force, it would be entirely impossible to control the multitude of small boys who are bent on celebrating in their own fashion. On the other hand, very few officers or inspectors could easily prevent or stop either the manufacture or sale of this dangerous toy.

We urge the medical profession to take up this subject right now, and, by having proper regulations enacted, save the life of a number of children, more or less under their care, not to say, perhaps, of some very near and dear to them.

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary, 163 University Place,
New Orleans.

NEXT MEETING, LAFAYETTE, LA., MAY 3, 4, 5, 1904.

OFFICERS—President, Dr. J. M. Barrier, Delhi; 1st Vice President, Dr. L. G. LeBeuf, New Orleans; 2nd Vice President, Dr. F. J. Mayer, Scott; 3rd Vice President, Dr. Oscar Dowling, Shreveport; Secretary, Dr. Wm. M. Perkins, New Orleans, Treasurer, Dr. M. H. McGuire, New Orleans.

COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St. Charles St., New Orleans; S. L. Williams, Sec'y, 5th Cong. Dist., Oak Ridge; J. F. Buquoi, 1st Cong. Dist., Point-a-la-Hache; F. R. Tolson, 3d Cong. Dist., Lafayette; N. K. Vance, 4th Cong. Dist., Shreveport; C. M. Sitman, 6th Cong. Dist., Greensburg; C. A. Gardiner, 7th Cong. Dist., Bristol.

Chairman Committee on Arrangements, Dr. F. J. Mayer, Scott, La.

PRESIDENT'S TRIP.—In the interest of Parish organization the President has undertaken a series of trips through the State. He has been most cordially welcomed and is meeting with hearty co-operation and good-fellowship everywhere. Personal invitations to a meeting are sent to every available physician of a Parish and responses have shown the existence of a new and most satisfactory spirit of progress and co-operation. The following Parishes have been visited (prior to October 20): Franklin, East Baton Rouge, East Feliciana, West Feliciana, Point Coupée, West Baton Rouge, Iberville, Ascension, Orleans, Ouachita, Tangipahoa. All of these organized at the called meetings except West Baton Rouge, Iberville and Orleans, which were already organized, and voted to affiliate. The Councillors and Vice Presidents are co-operating both by their presence and letters.

The results of the other trips will be announced as completed. As this *JOURNAL* goes to press the Southwest Louisiana campaign is in progress and will be completed by November 1.

COUNCILLORS.—Dr. A. G. Friedrichs has been corresponding with the doctors of his District and with the co-operation of Dr. Buquoi is planning organization meetings.

Dr. J. F. Buquoi has removed from his District, but leaves the work practically complete. Plaquemines is organized, St. Bernard has only two physicians, and the rest of the District is in New Orleans.

This emphasizes a very important point for next year's meeting to consider. Why should an energetic and efficient Councillor have practically only one Parish to look after, when dividing Districts according to lines of travel would more equally distribute the work? We need more Councillor Districts and they should follow practicable lines.

Dr. F. R. Tolson has co-operated with the President in his trip of organization in the Third District and writes there will be a grand time at the Lafayette meeting.

Dr. N. K. Vance has recently returned from his vacation and has vigorously taken up correspondence work in the Fourth District.

Dr. S. L. Williams has been on a long vacation in the West, but has been corresponding with the doctors of the Fifth District.

Dr. C. M. Sitman assisted in forming the Tangipahoa Society, which he joined. He is at work in the Sixth District, in which a number of Parishes have already organized.

Dr. C. A. Gardiner has visited several Parishes in the Seventh District and launched several societies.

SECTIONS.—Section on Surgery is the first to announce its subject for the Lafayette Meeting. "*The Importance of Surgical Tuberculosis to the General Practitioner*" will be offered for general discussion. While papers bearing on this are especially solicited, reports of cases and other original papers on any interesting surgical subject will be welcome. The Chairman is Dr. Hermann B Gessner, 830 Canal street, New Orleans.

COMMITTEES.—The Chairman of the Pasteur Institute Committee, Dr. Charles Chassignac, announces that there is no further work for his Committee to do, as the Charity Hospital at New Orleans has undertaken to establish a Pasteur Laboratory. Contributions for this purpose might be sent to the Hospital direct if desired. The action of the State Society in this matter evidently contributed to a definite action by the Hospital Board.

The President has appointed Dr. A. F. Barrow, of St. Francisville, as the Louisiana member of the Auxiliary Committee on Legislation of the American Medical Association.

The Committee on State Medical Law is at work. It has been

suggested for their consideration that a physician should register anew in the Parish into which he moved. Suggestions may be sent to the Chairman, Dr. F. A. Larue, 624 Gravier street, New Orleans.

1904 DUES.—All new members in Ascension Parish and some in Sabine and Tangipahoa Parishes, have paid 1904 dues in advance, and are receiving the JOURNAL free.

Only 1904 dues can be received through Component Societies. Pay 1903 dues direct to the Treasurer, Dr. M. H. McGuire, 731 Carondelet street, New Orleans.

New members coming in now *through Component Societies* do not pay 1903 dues.

SUNDRY NEWS.—Dr. H. C. Coty, of Shreveport, who has been dangerously ill, is much better.

Dr. I. M. Callaway, Superintendent of the Shreveport Charity Hospital, has resigned.

At least three Parishes have every eligible physician enrolled.

The physicians of Caldwell Parish are trying to reorganize.

The transactions for 1903 will be considerably later in publication than those of last year. The increased amount of work thrown upon the Secretary's office by the radical changes in the Society's methods of conducting its affairs and the vigorous campaign of organization, have delayed the editorial work.

THE BI-PARISH MEDICAL SOCIETY (Red River and Natchitoches) was organized September 15, 1903. President, Dr. C E. Edgerton, Coushatta; First Vice President, Dr. Samuel Scruggs. Cloutierville; Second Vice President, Dr. W. G. Sibley, Robeline; Secretary, Dr. J. A. Hendrick, Eastpoint; Treasurer, Dr. James McGoldrick, Coushatta. The dues were fixed at \$6 and affiliation with the State Society was decided on. All legally qualified physicians in both Parishes were notified that they were members and given until October 15 to qualify. The next meeting will be in Natchitoches.

THE TRI-PARISH MEDICAL SOCIETY (Claiborne, Webster and Bienville) organized with thirty-one members. President, Dr. L. Longino, Minden; Vice President, Dr. J. Atkinson, Arcadia; Secretary-Treasurer, Dr. J. E. Knighton, Homer. The Society

met in Arcadia, September 17. Papers were read by Dr. F. M. Thornhill, of Arcadia, on "Malarial Hemoglobuniria;" by Dr. L. T. Waller, of Haynesville, on "Static Electricity as a Therapeutic Agent;" Dr. J. H. Givens, of Arcadia, reported a case of "Unsuccessful Attempt at Suicide with Strychnin and Laudanum." The meeting was well attended and the papers were enjoyed and discussed. A committee was appointed to revise the Constitution and By-Laws to make them conform to the Constitution of the State Society. This committee to report at the next regular meeting to be held at Homer, January 14, 1904, when the following program will be followed: Papers on "Pneumonia," by Dr. S. I. Colvin, of Mt. Lebanon; "Puerperal Eclampsia," by Dr. J. Atkinson, of Arcadia; "Pulmonary Tuberculosis," by Dr. R. W. Smith, of Dubberley; "Diphtheria," by Dr. J. C. Willis, of Homer; "La Grippe," by Dr. S. M. Scott, of Minden.

COMPONENT SOCIETIES.—Charters have been issued to the following Component Societies which are henceforth the official representatives of the Louisiana State Medical Society in their respective Parishes. All members of the State Society in these Parishes are hereby notified that in accordance with Article IV of the Charter, and Article IV, Section 2 of the Constitution, they will have to hold membership in their Parish Societies in order to retain membership in the Louisiana State Medical Society.

THE RICHLAND PARISH MEDICAL SOCIETY organized July 15, 1903. Chartered September 20, 1903. Membership 8. The following are the charter members: Drs. D. R. Sartor, Alto (Pres.); H. B. Wren, Rayville, (Vice Pres.); H. F. Wilkins, Rayville, (Secty.-Treas.); J. M. Barrier, Delhi; W. P. Washington, Alto; C. G. Snyder, Alto; Nash Collins, Delhi; J. E. Thompson, Delhi. They have adopted, with almost no amendments, the Constitution and By-Laws suggested by the State Society and will meet quarterly.

FRANKLIN MEDICAL PARISH SOCIETY organized September 24, 1903. Chartered, September 26, 1903. Membership 11. President, Dr. W. W. Lea, Gilbert; Vice President, Dr. L. M. Griffin, Oakley; Secretary-Treasurer, Dr. C. L. Ramage, Winnsboro. Following are also Charter Members: Drs. C. L. Guice, Winnsboro; M. O' Brien, Lenoir; J. L. Denson, Crowville; W. H. Berry,

Winnsboro; H. B. Womble, Gilbert; J. A. McNair, Gilbert; J. Poindexter, Lidierville; R. L. May, Baskin. Meetings second Tuesdays of January, April, July and October.

VERNON PARISH MEDICAL SOCIETY. Organized March 4, 1903. Chartered September 28, 1903. Membership 14. President, Dr. M. R. McAlpin, Leesville; Vice President, C. C. Self, Hornbeck; Secretary, Dr. F. W. Dortch, DeRidder; Treasurer, Dr. J. H. Word, Leesville. Following are also Charter Members: Drs. F. P. Jones, Leesville; J. R. Franklin, Hornbeck; W. P. Perkins, Leesville; E. E. Smart, Leesville; W. L. Hoagland, Neame; J. D. Tuten, Pickering; M. Monk, Leesville; J. R. Walter, DeRidder; J. Z. Barnett, Bon Ami; H. F. Myers, Rose Pine.

SABINE PARISH MEDICAL SOCIETY. Organized July 24, 1903. Chartered October 1, 1903. Membership 16. President, Dr. G. W. Mott, Converse; Vice President, J. M. Middleton, Many; Secretary, Dr. D. H. Dillon, Fisher; Treasurer, Dr. W. P. Addison, Negreet. Following are also Charter Members: Drs. J. B. Parrott, Zwolle; J. C. Parrott, Zwolle; Lee Vines, Loring, and nine others, whose names will be published next month. This Society took proper steps to be chartered immediately after organization, but delay was caused by an oversight in the State Secretary's office. The program for their January meeting will be announced next month.

ST. LANDRY PARISH MEDICAL SOCIETY. Organized July 10, 1903. Chartered October 9, 1903. Membership 16. President, Dr. L. Lazaro, Ville Platte; Vice President, Dr. T. H. Littell, Morrow Station; Secretary, Dr. W. R. Lastrapes, Opelousas; Treasurer, Dr. W. R. Boudreau, Washington. Following are also Charter Members: Drs. R. M. Littell, Opelousas; Ira E. Shute, Opelousas; B. A. Littell, Opelousas; J. P. Saizan, Opelousas; Paul Foster, Bayou Chicot; R. G. Hawkins, Palmetto; James O. Ray, Opelousas; H. S. Joseph, Melville; G. Richard, Leonville; C. A. Gardiner, Bristol; T. T. Tarleton, Grand Coteau; J. C. Vidrine, Ville Platte.

EAST FELICIANA PARISH MEDICAL SOCIETY.. Organized October 2, 1903. Chartered October 10, 1903. Membership 10. President Dr. S. L. Singletary, Wilson; Vice President, Dr. A. Gayden, Nor-

wood; Secretary-Treasurer, Dr. E. C. McKowen, Jackson. Following are also Charter Members: Drs. A. R. Holcombe, Jackson; J. W. Lea, Jackson; W. F. Hagaman, Norwood; Harry Johnston, Wilson; E. M. Hummel, Jackson; W. E. Kittredge, Jackson; E. L. Erwin, Clinton. Meets second Tuesday of January, April, July and October.

WEST BATON ROUGE MEDICAL SOCIETY. Organized October 1, 1903. Chartered October 10, 1903. Membership 7. President, Dr. F. H. Carruth, Lobdell; Vice President, Dr. J. O. St. Dizier, Walls; Secretary-Treasurer, Dr. H. Guy Riche, Devall. Following are also Charter Members: Drs. George Biener, Port Allen; James H. Bowen, Devall; E. Bourgeois, Cinclare; Carl Weiss, Lobdell. Meets on first Thursday of January, April, July and October.

ORLEANS PARISH MEDICAL SOCIETY.. Organized in 1878. Incorporated in 1899. Chartered October 12, 1903. Membership 217. President, Dr. E. J. Graner; First Vice President, Dr. J. A. Storck; Second Vice President, Dr. O. Joachim; Third Vice President, Dr. O. L. Pothier; Secretary, Dr. S. M. D. Clark; Treasurer, Dr. W. H. Seemann; Librarian, Dr. Homer Dupuy. Additional Members Board of Directors: Drs. John Callan, H. B. Gessner, Wm. M. Perkins. Meets second and fourth Saturdays of each month.

ASCENSION PARISH MEDICAL SOCIETY. Organized October 8, 1903. Chartered October 14, 1903. Membership 11. President, Dr. W. M. McGalliard, Donaldsonville; Vice President, Dr. T. H. Hanson, Donaldsonville; Secretary-Treasurer, Dr. Paul T. Thibodaux, Donaldsonville. Following are also Charter Members: Drs. L. E. Duffel, Hohen Solms; J. L. Richard, Donaldsonville; J. L. Violet, Hope Villa; J. B. Easterly, Gonzales; R. W. Collins, Dutchtown; D. C. Brumfield, Darrow; M. S. Picard, Dutchtown; E. K. Sims, Donaldsonville.

EAST BATON ROUGE MEDICAL SOCIETY. Organized September 30, 1903. Chartered October 16, 1903. Membership 13. President, Dr. J. W. Dupree, Baton Rouge; Vice Pres., Dr. George W. Sitman, Burtville; Secretary-Treasurer, Dr. Charles McVea, Baton Rouge. Following are also Charter Members: Drs. J. B. Duchain,

Baton Rouge; J. A. Caruthers, Baton Rouge; T. P. Singletary, Baton Rouge; T. C. Foreman, Foreman; J. R. Fridge, Baton Rouge; J. C. Allen, Baton Rouge; H. M. Young, Baker; T. L. Mills, Zachary. Meets second Wednesdays of each month

TANGIPAHOA PARISH MEDICAL SOCIETY. Organized October 19, 1903. Chartered October 20, 1903. Membership 18. President, J. H. Ellis, Kentwood; Vice President, Dr. C. S. Stewart, Amite City; Secretary-Treasurer, Dr. J. L. LeNoir, Amite City. Following also signed as Charter Members: Drs. C. N. Sitman, Greensburg (St. Helena Parish); S. L. Powlett, Hammond; J. M. Craig, Amite City; C. E. Kennon, Kennon; J. W. Lambert, Tangipahoa; H. G. Morris, Kentwood; T. C. W. Ellis, Jr., Amite City; C. M. Abbott, Ponchatoula; E. H. Williams, Ponchatoula; Russell E. Stone, Amite City; L. E. Allen, Independence; A. F. Gates, Hammond; H. H. Gates, Ponchatoula; J. P. Pickett, Independence; E. O. Powers, Grangeville (St. Helena). Meets second Wednesday of January, April, July and October.

PARISHES RECENTLY ORGANIZED AND NOY YET CHARTERED. West Feliciana Parish Medical Society. Organized October 3. Pointe Coupee Medical Society. Organized October 5. Iberville Parish Medical Society. Organized last June. St. Tammany Parish Medical Society. Organized October 20. Ouachita Parish Medical Society. Organized October 17. Lafourche, October 21. Assumption, October 22. Terrebonne, October 23. St. Mary, October 24.

Complete reports of each parish will be issued as they are chartered.

Orleans Parish Medical Society Notes.

[Edited by the Publication Committee, Dr. S. M. D. Clark, Chairman, Drs. Jules Lazard and N. F. Thiberge.]

IT IS GRATIFYING TO KNOW that we are now a component society of the Louisiana State Medical Society. At the last meeting the

report from the Board of Directors recommending certain changes in our By-Laws was received and favorably acted upon. The State Society has granted us a new charter, which has been framed and is adorning the walls of the Society's rooms.

AT OUR LAST QUARTERLY MEETING we had with us Dr. J. M. Barrier, President of the State Society, who delivered an interesting and earnest talk upon medical organization throughout the State; telling us with what enthusiasm he had been received throughout the parishes, and at the next meeting of the State Society he thought a most favorable report could be read on the progress of medical organization in Louisiana. We have an untiring worker in our State President, and it is to be sincerely hoped that his successor will take up the thread of organization where Dr. Barrier leaves it, and push forward this all important matter.

THE TREASURER'S REPORT FOR THE LAST QUARTER showed a balance on hand of \$690.

THE LIBRARIAN REPORTED the purchase by the Society of fifteen new books. Quite a number of valuable transactions, periodicals and text-books have been donated to the Society by several of its members.

THERE HAVE BEEN 33 NEW MEMBERS to join the Society during the present administration and five resignations have been received up to the present day. Our present number is 217.

THE TRUE IMPORTANCE AND ACTUAL NECESSITY OF OUR HAVING NEW QUARTERS for our Library and meeting place is not generally appreciated by the members of this Society. The vast majority of the men know, rather in a vague way, that our home is not attractive and that there has been appointed a committee to look for new quarters, but no further than this their interest ends and they have not given the matter a moment's thought. The members of the Committee on Domicile are reliable and hard workers, having done up to the present time some work without accomplishing any definite results; but if we accomplish anything at all we are not to depend entirely upon this committee, for it is to be remembered that they have to attend to their professional

duties as well as the rest of us. The Society has to be brought to realize the absolute imperativeness of having newer and more attractive quarters. If every member would make it his duty to keep in mind this want of the Society and whenever a possible location is seen by him, to take it upon himself to look into the matter and report to this Committee, then we would begin to work along the proper lines and in the end accomplish something. Our Society has passed the experimental stage; we are over 200 strong and from the recent methods of organization adopted throughout the medical world, its importance as a factor in the profession of this Parish will daily become stronger. We were never in a more prosperous condition than at the present time. It is a shame that we have not cleaner and more attractive quarters in which to meet. There is no place where one can quietly read. We want a separate reading room. The typewriter, telephone, writing table, personal chats, etc., are all in the small space of 20 by 20 feet. Above all things we should have a quiet and private room where one who is looking up references and preparing a paper, could escape the general noise of the room. Give the Committee on Domicile the power to advertise in the daily papers for the character of place they wish, then let us help them look into the many offers that will be received. We want more work, less talk and some actual results.

The Board has authorized the President and Secretary to buy a new typewriter, which is a sorely needed necessity; our old one is antiquated and also thoroughly worn out from constant use.

Medical News Items.

THE NEW ORLEANS POLYCLINIC begins its session Monday, November 2.

TULANE MEDICAL DEPARTMENT has opened with a large class.

TOURO INFIRMARY graduated eleven trained nurses on September 30.

THE NEW ORLEANS SANITARIUM expects to complete and occupy its new building early in December.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION at its meeting in Memphis, elected the following officers for the coming year: Dr. Hugh T. Patrick, Chicago, Ill., president; Dr. Bransford Lewis, St. Louis, first vice president; Dr. G. W. Cale, St. Louis, second vice president; Dr. H. E. Tuley, Louisville, secretary; Dr. S. C. Stanton, Chicago, assistant secretary; Dr. T. H. Stucky, Louisville, treasurer. The executive board will consist of the vice presidents of the past. The place for next year's meeting will be announced later by a special committee. The convention adjourned *sine die*.

THE CROWLEY BOARD OF HEALTH at its last meeting, October 8, decided to enforce the ordinance requiring the registration of all births and deaths in the city.

THE INTERNES FOR THE COMING WINTER AT THE SHREVEPORT CHARITY HOSPITAL are: Dr. L. J. Danos and Messrs. R. J. Maine-gra, P. T. Talbot, Jr., and J. Q. Graves, Jr.

DIED.—Dr. Edwin N. McPheeters, of Natchez, died October 2, aged twenty-one years, son of Dr. W. A. McPheeters, the oldest and best known physician of that city, after a brief illness, following an operation for appendicitis. He was for two years a medical student at Tulane University, New Orleans, and an interne at the Natchez hospital at the time of his death.

Dr. Dominick F. Harang, aged twenty-five years, a promising young physician of New Orleans, died recently. A graduate of Jefferson College of the class of 1898, he entered Tulane Medical College, from which he was graduated in 1901.

Dr. W. W. Whitehead, of Greenwood, Miss., died recently in that city, age 25 years. He had just entered the practice of his profession, and was the son of Dr. N. E. Whitehead.

IN MEMORY OF DR. WILLIAM E. ROGERS, the directors of the Memphis Medical College, have established a lectureship, named in his memory.

The lectureship was established upon the suggestion of the faculty. Once during each session a lecture will be given by a specialist in some branch of medical science, at the invitation of the faculty.

The first lecture will be given about the middle of November by Dr. Charles H. Hughes, of St. Louis.

PERSONAL.—Dr. W. E. Hawkins, of Shreveport, has sold out his drug business and will give his entire time to practice.

DRS. Q. KOHNKE, A. NOLTE AND J. N. THOMAS were present at the meeting of the American Public Health Association, held in Washington, October 26-29.

DR. HENRY S. COGRAM has returned from an extended stay in the West and has resumed his practice and professional work in the Polyclinic.

DR. L. G. WHITE, of Gueydan, La., has removed to New Braunfels, Texas.

AMONG THOSE WHO WERE ON VACATION, the following have returned: Drs. J. F. Oechsner, F. W. Parham, C. J. Miller, E. D. Martin, Paul Reiss, P. Michinard, H. P. Jones, M. Souchon, L. G. LeBeuf.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

Diseases of the Skin, by H. RADCLIFFE CROCKER, M. D. (Lond.), F. R. C. P., Third Edition. P. Blakiston's Son & Co., Philadelphia, 1903.

Once more the author of this acceptedly authoritative work has added to the debt of gratitude of the medical profession. Free of dogma, fair in discussion, broad in presentation of each subject, this, the third edition of Dr. Crocker's text on skin diseases meets the current needs of advanced dermatology. At the very start a revision of the classification seems to serve in making the subject clearer. Of course many opinions of the

English school are reflected and traditional teaching as in the groups of syphilis and types of leprosy are found. New names of old diseases and a consonant text are given, and no pains have been spared in elucidating obscure pathology. The more recent work in eczema, tuberculosis, and the nerve diseases are all presented. This work must stand as classic among the texts on Diseases of the Skin.

DYER.

Atlas and Epitome of Diseases of the Mouth, Pharynx, and Nose. By DR. L. GRUNEWALD, of Munich. Second Edition, Revised and Enlarged. Edited with Additions by JAMES E. NEWCOMB, M. D. W. B. Saunders & Co., New York, 1903.

The original edition of this work has already become an important part of the well equipped medical library, and is well recognized as a very valuable aid to the student of this branch of medicine, particularly to those who have poor clinical facilities for familiarizing themselves with the clinical aspects of the lesions of these organs. The colored lithographic illustrations of the various pathologic lesions are quite true to life, and with the explanatory text, offer an excellent means of practice in diagnosis.

This second edition is a complete revision and improvement of the first, with some very valuable additions and comments by the editor.

DER. & K.

The Practice of Obstetrics by American Authors, edited by CHARLES JEWETT, M. D. Illustrated, etc. Lea Brothers & Co., New York and Philadelphia.

The JOURNAL has already published a full review of this work, and it only remains to notice the changes and additions that this editor presents. The book retains its excellence in arrangement and completeness.

We notice that the chapters on Anomalies and Diseases of the Fœtal Appendages, and on Diseases of Pregnancy are written by Dr. M. A. Crockett, of Buffalo. These chapters were originally contributed by Dr. J. H. Etheridge, now deceased. The first of these chapters, while fairly well presented, fails to give evidence of any personal investigation. The second chapter is an improvement on the first, but certain parts appear to have been hurriedly written.

Chapter XXIX is well handled, especially that part relating to the support of the pelvic organs. The writer appears a little too sanguine as to the utility of immediate repair of the torn cervix—a procedure which, excepting to arrest bleeding, has been abandoned by nearly all of its former advocates.

The book, as a text-book, will always command attention and respect.

MICHINARD.

The Medical Epitome Series—Physiology, by THEODORE C. GUENTHER, M. D. and AUGUSTUS E. GUENTHER, B. S. Lea Bros. & Co., Philadelphia and New York, 1903.

This text is arranged for the student in a small and compact form to which the authors have surrendered much illustration and have made the

text more complete. The scheme of the subject handles the functions in their several order, followed by the study of the special senses. Each chapter concludes with a comprehensive question list based on the previous subjects discussed.

DYER.

Recollections of the Old Quarter, by WM. S. GORDON, M. D. Morse Bros. Co., Lynchburg, Virginia.

I know much of the coloring Dr. Gordon has put in his negro sketches, and they are true. To any one who has found the old cabins and their tenants at the time of their friendliness and garrulousness, which is always, the Virginia darkey is just like the author makes her and him. There are just a few stories, but they are full of the pathetic reminder that the old days are going and the old quarters too—for the newer generation has no trace even of the sweet servitude and affection these stories tell.

DYER.

A Laboratory Text-Book of Embryology, by CHARLES SEDGWICK MINOT, LL. D. (Yale) D. Sc. (Oxford). P. Blakiston's Son & Co., Philadelphia, 1903.

The argument of this admirable text is in the introduction, where the study of embryology is definitely presented as the key to the knowledge of anatomy, morphology and pathology. Aimed chiefly as a text for the student, this work fills a place as a clear exposition of the evolution of the human vital elements into the baby born. Comparative studies are presented, of lower animals and organisms, and throughout superb illustrations amplify the reading matter.

DYER.

A Text-Book of Legal Medicine and Toxicology. Edited by FREDERICK PETERSON, M. D. and WALTER S. HAINES, M. D. W. B. Saunders & Co., Philadelphia, New York and London, 1903.

This work is to appear in two volumes. Volume I is before us. Since Taylor's and Stille's work no such effort has ever been made in the English language to present an exhaustive work on medical jurisprudence.

Most texts on this branch of scientific knowledge content themselves with a review of the salient and essential points serving the ordinary interest in the subject. The work before us makes each of its divisions a complete, almost encyclopedic reference, embodying both antecedent and current opinions and findings.

An intense interest attaches to the ordinary medicolegal case in court and the testimony is always sufficiently varying to allow the speculation as to the source of such different opinions. An introductory chapter here pleads for a consistent method of expert testimony and a proper qualification of the witness who consents or is summoned to appear. Quite properly the lawyer is scored for the methods often practiced of browbeating and attempting to confuse the witness.

Each chapter is complete and beginning with the technic of examining the dead, the reader and student are carried through a graphic and interesting detail of the various phases of these subjects which naturally and logically fall within the purview of such a work.

The chapter on Identity is unusually comprehensive, sparing nothing in exactness and presenting much that is original in such matters, as the hair, finger prints, scars, handwriting and mental relations so far as memory and acquirements are concerned.

The article on Insanity, by Dr. J. T. Eskridge, now deceased, is of unusual value and importance. The illustrations alone are graphically true and pregnant with differential points, while the text has been prepared with consummate clearness.

Railway injuries, the Medical Jurisprudence of Life Insurance, Wounds, Inebriety, Speech Disorders, Etc., are among the other titles discussed.

Two excellent chapters are presented on The Stigmata of Degeneration (Peterson) and Mental Perversions of the Sexual Instinct (Chaddock). Both of these are fully written up to date and each goes a long way to establish the importance of these anthropologic questions as related to Legal Medicine. Obscure crimes and the criminal instinct are made more patent and the essence of the arguments, freely illustrated by striking examples of degeneracy and perversion, open up a field hitherto relegated to the specialist in anthropology and to the alienist.

Not alone the medical and legal professions but the public generally are appreciably in the debt of the publisher, contributors, and editors of this work which must stand for some time to come as an authoritative reference in its particular field.

DYER.

A Practical Treatise on Materia Medica and Therapeutics, by ROBERT BARTHOLOW, M. A., M. D., LL. D. Eleventh edition. D. Appleton & Co., New York and London, 1903.

No student of medicine in the past twenty-five years has passed the period of his apprenticeship without learning to synonymize *Materia Medica* with "Bartholow."

The plan of the present edition has not changed materially from its predecessors, while much that is new has been added to the present work. Every practitioner will welcome an old friend in new garments and, particularly, bringing the advanced ideas in medication.

Among the newer remedies discussed we may note: apiol, ariol, chloretone, cutol, loretin, argonin, protargol, yohimbin, etc. X-rays are dismissed with scant discussion, while the article on the application and indications of electricity is well presented.

Sufficient to say that this last edition of an authoritative text has only improved in its revision and it may still bid for a continued favor.

DYER.

American Edition of Nothnagel's Practice. Diseases of the Pancreas, Suprarenal Capsules, and Liver. By DR. L. OSER, DR. E. NEUSER and DRs. H. QUINCKE and G. HOPPE-SYLER. Edited by FREDERICK A. PACKARD, M. D., and REGINALD H. FITZ, M. D. W. B. Saunders & Company, Philadelphia, New York, London, 1903.

This book combines in one volume the sum of our knowledge concerning Diseases of the Pancreas, the Suprarenal capsules, and the Liver. Any contribution on these subjects is of great interest to the profession, and these monographs, producing from such distinguished investigators, will

be found of unusual importance. In the section on the Pancreas and the Suprarenals, the numerous experiments upon animals cited will be of great value to the pathologist, the clinician, and the pathologic anatomist, affording an insight into the more deep-seated processes, and offering an opportunity of comparing the disturbances of function produced by morbid conditions experimentally induced, with bedside and autopsy observations. In editing this section the editor has availed himself of the writings of Karte and Mayo Robson, especially the latter's important treatise on the etiology and treatment of chronic pancreatitis. An editorial addition to the section on the suprarenal capsules which seems especially noteworthy, is the investigation and discoveries on the active principles and therapeutic properties of suprarenal extract.

The excellent article on the liver is thorough and complete as those on the Pancreas and Suprarenals. Dr. Packard's careful clinical work, and his interest in the diseases of the liver, mark him as the most suitable person to edit this article.

A survey of the work shows numerous critical additions, embodying the very latest contributions, besides expressions of his own views regarding subjects under discussion. He has devoted special care to diagnosis and treatment, including the surgical proceedings that have recently found their place in this field. With these numerous editorial additions the articles brought fully up to date, and have no equal in our language.

E. M. D.

Tuberculósis. Recast from Lectures at Rush Medical College, in affiliation with the University of Chicago. By NORMAN BRIDGE, A. M., M. D., W. B. Saunders & Company, 1903.

In this excellent work the practical side of the care and management of those sick with the various non-surgical forms of tuberculosis has been concisely stated. Full consideration has been given to prophylaxis an all important phase of the subject that has heretofore been much neglected. They are also chapters upon the Bacillus of Tuberculosis; on the Pathology, Etiology, Symptoms, Physical Signs, Diagnosis and Prognosis of the disease, each treated in the judicious and thorough manner to be expected in a work by such a well-known authority as Dr. Bridge. Treatment is accorded unusual space, there being chapters upon Hygienic Treatment, Management of the Diseased Lung, Climatic Treatment, Medicinal and Local Treatment, Special Treatments, besides a chapter devoted to the subject of sanatoria. Altogether the work is a most valuable one, and we heartily recommend it to practitioners as the latest and best work of its pretensions it has been our good fortune to review.

E. M. D.

Materia Medica for Nurses, by JOHN E. GRAFF, PH. G., 2d. Edition. P. Blakiston's Son & Co., Philadelphia, 1903.

As a matter of education, extensive works on the elemental subjects of medicine are useful to the trained nurse; to most of them, however, the simplest are ordinarily the wisest texts. The little work before us belongs in the latter class, and is especially noteworthy because of the clear way in which definitions are presented.

DYER.

The Practical Medicine Series. Obstetrics. Edited by RUBEN PETERSON, A. B., M. D., and HENRY F. LEWIS, A. B., M. D. The Year Book Publishers, Chicago, 1903.

Brief reviews and criticisms of the year's literature on obstetrics are given, with reference to the articles and works from which the material is drawn. It is just such works as this which keep the general practitioner in touch with current medical and surgical topics. DYER.

Practical Points in Nursing, by EMILY A. M. STONEY. Third Edition. W. B. SAUNDERS & Co., Philadelphia, New York and London, 1903.

There has never been written a better text-book than this for the student or graduate nurse. It has the first quality of practicability and further than this it presents the subject from a qualified nurse's standpoint. No detail is omitted and every nurse should read carefully the advice and instruction this book carries. Besides the practical suggestions, the work contains short chapters in physiology and anatomy and concludes with a very good glossary of the terms employed in the text. DYER.

The Care of the Baby, by J. P. CROZER GRIFFITH, M. D. 3d. Edition. W. B. Saunders & Co., 1903.

This book contains a mass of information directed at instructing the mother or nurse in the care of the infant and young child. Beginning with the preparation for the coming baby, the text covers all the ground from feeding to the signs of the commoner diseases. Formulæ for remedies are given and a dose list is also presented, both questionable features of a text intended for lay hands. Altogether, however, the work must prove of service in the hands of an intelligent mother or nurse. DYER.

Medical Jurisprudence, Insanity and Toxicology, by HENRY C. CHAPMAN, M. D. 3d. Edition. W. B. Saunders & Co., 1903.

Each subject usually discussed in texts on Medical Jurisprudence finds place here. Throughout the author urges the better study of these questions by the medical man. Of especial note are the chapters on Insanity and Toxicology, both of which are ably presented and with the practical points brought out. Malpractice finds place and is especially noteworthy because of the advice contained; the precaution to be observed by every physician in assuming a case in which serious outcome is likely: the friends of a patient should be made to share the responsibility. The Pervert is dismissed in half a page and then with an apology for introducing the subject, one which must yet occupy the medical jurist to the greatest extent.

Altogether the work is satisfactory, although the type in many places is imperfect and needs better proofreading. DYER.

A Manual of Practical Hygiene, by CHARLES HARRINGTON, M. D.
2nd Edition. Lea Brothers & Co., Philadelphia and New York, 1903.

A vast fund of information and of instruction is arranged within the 760 pages of this work. To the ordinary individual the word "Hygiene" has reference chiefly to the ideas of cleanliness of person and surroundings. Dr. Harrington has elaborately presented a complete reference and text on hygiene in its broadest and fullest sense, the preservation of the health of the individual, and incidentally of the public. The several chapters embrace the study and analysis of food, water, beverages, air and soil; disinfectants; military and naval hygiene; personal cleanliness and the disposition of the dead.

We are especially pleased to note the chapter on insects and particularly to that part bearing on the mosquito. This is brought up to date and is quite free in giving the New Orleans Mosquito Commission full credit for its work in 1901. (Published in this JOURNAL, January, 1902.)

The importance of vital statistics is dwelt upon and a very interesting table is presented showing the growing favor of cremation in the United States, where in 1901 there were 27 crematories and 8,885 bodies disposed of!

Altogether the text here noticed must prove a valuable acquisition to medical health officers and to others interested in exact detail and technic in "practical" hygiene.

DYER.

Surgical Anatomy, by JOHN B. DEAVER; In three volumes; Vol. III, Abdomen, Pelvic Cavity, Thorax and Lower Extremity. P. Blakiston's Son & Co., Philadelphia, 1903.

This volume completes the great work of Deaver. We have cordially commended the previous volumes and will only repeat that this *Surgical Anatomy* is a monument to American Surgery and should be in the hands of every surgeon and practitioner. The text is clear and the illustrations excellent, and it can not fail to be of the greatest assistance, especially to those who have not the advantage of dissection of the cadaver.

PARHAM.

A Manual of Surgical Treatment, by CHEYNE & BURGHARD, in Seven volumes, Vol. VII, the treatment of the Surgical affections of the rectum, the liver, pancreas and spleen, the genito-urinary organs, the breast and the thorax. Lea Bros. & Co., Philadelphia and New York, 1903.

As we have previously noted, this work does not attempt to go into discussion of pathology, but devotes itself to the subject of treatment almost exclusively, giving only so much of the pathology as is necessary to make clear the treatment of the different phases of surgical diseases. The completed work is a very entertaining and useful presentation of surgical treatment and ought to prove a valuable addition to the library of any physician. The descriptions of surgical treatment are systematic and very clear and the advice uniformly judicious and safe.

PARHAM.

The Anatomy of the Human Peritoneum and Abdominal Cavity, by GEORGE S. HUNTINGTON, M. A., M. D. Lea Bros. & Co., 1903.

It is rapidly becoming recognized that the study of embryology can be made of great use in the study and more thorough comprehension of some of the problems of gross anatomy. The book before us represents part of the course in visceral anatomy as developed during the past fourteen years at Columbia University. It is an attempt to elucidate some of the difficult morphological problems connected with the development of the peritoneum and the abdominal viscera. The sections dealing with the morphology of the vertebrate ileo-colic junction and with the structural details of the cecum and appendix are considered somewhat more fully, because of the unusual abundance of available material. This and, indeed, all the other sections of the work will prove of great value to all who are interested in the study of the embryology of the abdominal cavity. The book before us is a *de luxe* edition most beautifully printed and adorned by a wealth of illustrations, many of them colored. The study of such books can not be too highly commended as it tends to give the student a much broader comprehension of the subject of anatomy than could possibly be derived from the study of the dissected subject alone.

PARHAM.

Gynecological Diagnosis, by PALMER FINDLEY, B. S., M. D. Lea Bros. & Co., Philadelphia and New York, 1903.

In the effort to condense modern gynecology into a book of convenient size there has been a gradual shrinkage of the space allotted to the diagnosis. This has long been recognized by both students and busy practitioners and Dr. Findley, appreciating the need of such a work presents this new volume of about five hundred pages.

The book in its general conception weighs with equal importance clinical and pathological findings. The subject is divided into general and special diagnosis and throughout the book appear many illustrations, most of which are original. There are chapters deserving of special mention. Those dealing with hydatiform mole, neoplasms of the uterus and ovaries, and malpositions of the uterus are especially interesting.

Carefully executed reproductions of pathological findings and colored plates add materially to the value of the book to one not in close touch with the microscope. The author has taught the practical and indispensable value of the microscope in gynecological diagnosis, this making the book a safe guide for students and a valuable reference for practitioners.

MILLER.

Practical Treatment of Stammering and Stuttering. By GEORGE ANDREW LEWIS and GEORGE B. HYNSON.

This work is intended not only for medical men interested in the study of laryngology and voice cultivation, but is especially written for those who are afflicted with stammering or other defects of speech or who desire to instruct in voice development and culture.

The text gives a comprehensive and thorough treatment of the subject of stammering from all points of view, and the reader is enabled to obtain a fund of entertainment as well as instruction from a perusal of the volume.

DEB. & K.

Mother and Child, by ED. P. DAVIS, A. M., M. D. J. B. Lippincott Co., Philadelphia, 1903.

While this little book is really intended for the laity it might be of great value to many physicians.

The intent of the book is to assist the woman to help herself during pregnancy, and to care for her child during baby-hood. The style of the book is chatty, and during the conversation, as it were, with the woman she is given a great deal of valuable, yet simple information about pregnancy, its duration and its accidents. She is told what care she should take of herself in order to be blessed with a successful delivery of a healthy child. The dangers of pregnancy are hinted at in the gentlest manner, and their avoidance clearly explained.

The care of the breasts is dwelt upon, and sound advice given in this direction. The woman is warned as to the possibility of perineal tears, and the duty of the physician as to their immediate repair.

The infant comes in for its full share of attention. There is a rather full and practical directory.

It would be well for many physicians to read this book.

MICHINARD.

A Text-Book of Pharmacology and Therapeutics. By ARTHUR R. CUSHING, M. A., M. D. Third Edition, Revised and Enlarged. Lea Bros. & Co., Philadelphia, 1903.

An old friend in a new edition. Here we have an almost ideal work in pharmacology and therapeutics—one in which the subjects are treated from the experimental standpoint, and in which a serious attempt is made to get away from the empirical teaching of pharmacology and therapeutics, and to put them on the firm foundation of scientific fact. Whenever found necessary, articles have been re-written and new matter has been added, that on the food value of alcohol being the most important. Concerning the food value of alcohol mention is made of the experiments by Neuman, Atwater and Benedict, and Rosemann.

The experiments carried out by these men are models of investigation in metabolism, and prove conclusively that alcohol can replace a chemically equivalent amount of fat in the dietary.

This book is commended to the practitioner for its exact pharmacologic and therapeutic information.

STORCK.

A Handbook of Materia Medica, Pharmacy and Therapeutics. By SAM'L. O. L. POTTER, A. M., M. D. Ninth Edition, Revised and Enlarged. P. Blakinson's Son & Co., Philadelphia, 1903.

We think that one of the best recommendations for this work is the fact that this is the ninth edition. Some of its good features were touched upon in a previous review of a former edition.

In the section on materia medica, many of the articles have been re-written.

Of adrenal extract the author says: "Being a powerful but temporary stimulant, it may be used continuously in cardiac weakness, in failure of the heart from any cause, and in valvular diseases of that organ."

The section on therapeutics has been enriched by new articles on beriberi, dhobic itch, tropical fevers, heart-stroke, hemoglobinuric fever, bubonic plague, and sprue. These articles are the result of material gathered from the authors' experiments in tropical climates.

In regard to vaccination against bubonic plague, Potter says: "Vaccination by Haffkine's protection inoculation of healthy persons causes severe reaction; the results, though encouraging, are not conclusive as to its value."

STORCK.

Microscopy and Bacteriology, by P. E. ARCHINARD, A. M., M. D. Lea Bros. & Co., Philadelphia and New York, 1903.

This is one of the popular Medical Epitome Series. It affords a clear yet concise résumé of the actual status of microscopy, especially as applied to medicine, and of bacteriology. Invaluable to the advanced student it can also be eminently useful to the practitioner who wishes to refresh his memory and post himself on technique.

The author has culled from the best current literature and has, in addition, given to his readers the benefit of his vast experience in the Municipal Laboratory.

The volume is one of the very best of the series and admirably fulfills its purpose. c. c.

A Text-Book of Surgery for Students and Practitioners, by GEORGE EMERSON BREWER, A. M., M. D. Lea Bros. & Co., New York and Philadelphia, 1903.

This volume of 700 pages essays to give the essential facts in practical surgery "as briefly as compatible with clearness," as stated in the preface. "No attempt has been made to review the historical aspects of the subjects, to describe rare conditions or to enter into theoretical discussions regarding the nature of obscure pathologic processes." Not more than two methods of treating a surgical affection have been given. We think the aims of the distinguished author have been well accomplished and that he has produced a comprehensive and satisfactory text-book on surgery that will prove a very reliable guide to the student of surgery "as briefly as compatible with clearness," as stated in the preface, necessarily very brief, a substantial groundwork for the future building of a thorough surgical structure is well laid and the book can be heartily commended. PARHAM.

The Surgery of the Head, by BAYARD HOLMES. D. Appleton & Co., New York, 1903.

This is the first of a series of volumes on surgical emergencies. The preface to this volume states that this series has been in course of preparation for a number of years. All parts of the body will be treated of except those of the well recognized specialties of the eye, ear, throat, nose and some others. The plan followed has some decided advantages for the student. At the beginning of each chapter the motive for the study of the subject and some concrete examples are given of the more important conditions requiring attention. Special care has been given to surgical perspective, the most frequently met affections being accorded the greatest prominence, but every condition of real importance receives due consideration.

In the volume before us not only the surgical affections of the brain, but the surgery of mal-formations of the head and face, and the injuries of the head and face, as well as the infectious diseases of the face and scalp are considered. One chapter is devoted to the tongue but the only disease of this organ considered is that of carcinoma, which seems somewhat out of place in a work of this kind. However, excepting a few criticisms of this nature, we have only good to say. The method of study is well calculated to fix the attention of the student and lead him on to a full comprehension of the whole subject. The book is written in an easy, natural style and is altogether very readable and entertaining. The illustrative cases selected are especially valuable, and add much to the

comprehension of the subjects treated. If the full series fulfills the promise of this volume the whole will prove a valuable addition to the resources of the student of surgery, and will likewise be very useful to the practitioner as well.

PARHAM.

A Reference Handbook of the Medical Sciences, Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By VARIOUS WRITERS A New Edition. Completely Revised and Rewritten. Edited by ALBERT H. BUCK, M. D., Vol. VI. Wm. Wood & Co., New York, 1903.

A review of this volume could only consist of a line of commendation of its general excellence. The system of which it is only a part has too long been known as a standard reference to need more than an announcement. To none will it prove more interesting than those who have the privilege of comparing corresponding pages of the new with the first edition.

The book of to-day represents modern medicine, just as the first edition represented the ideas of fifteen years ago. A comparison quickly reveals the marvelous progress in all branches of medicine and the allied sciences. A revision has virtually meant rewriting the subject matter, since new articles were necessary and such radical additions and changes required in numerous instances, especially in pathology. One is struck by the wisdom displayed in the selection of the contributors. The comprehensive but concise style of the whole work is admirable.

There are many articles worthy of special mention. Hartley, on Resection of Joints; Reparative Surgery, by Randhoff and Ptomains, by Rudolph Witthaus, are unusually complete for condensed reference work.

The present great interest in the pancreas, particularly the surgical side, is well illustrated by Harris and Armstrong.

Neurasthenia, by Putnam and Waterman; the Neurone, by Llewellyn Barker and Nævus by Isadore Dyer, are sections particularly valuable.

The work when complete will be the most valuable reference library in the English language.

MILLER.

Practical Obstetrics. A Text-Book for Practitioners and Students. By EDWARD REYNOLDS, M. D., and F. S. NEWELL, M. D., Illustrated with 252 Engravings and 3 Colored Plates. Lea Bros. & Co., Philadelphia and New York, 1902.

Brevity and conciseness, without loss of usefulness, and the one-treatment plan, appear to be the objects aimed at by the authors. To some the idea will appear to have been so closely adhered to that in some instances usefulness has been somewhat sacrificed. Take for instance the Etiology of Eclampsia. The subject is dismissed with 13½ lines, and the following theory alone presented: "There is no doubt at the present time but that Eclampsia is the direct result of a severe general toxæmia, which the most recent investigations tend to show to be due to an intra-uterine infection." (See page 398.) The rest of the chapter is rather full and well presented. The treatment adopted by them for inter-partum convulsions is prompt emptying of the uterus, of course, with the patient under the influence of an anesthetic. Stroganoff's oxygen inhalation plan is described. Very little faith is put in veratrum viride.

The chapter on Septic Infection though extremely brief for so important a subject is well arranged and contains some valuable ideas as to

etiology, pathology and classes of the disease. Many, however, will oppose their plan of treatment. For example, their belief is that the curette is superior to the finger for removing from the uterine cavity decomposing material, and that the curette should be used "as a routine in all cases in which the uterine lochia are distinctly foul," that the scraping should be repeated "until every portion of the wall yields the firm, almost grating sensation which is characteristic of uterine tissue," and that the cavity should be washed with a 1 to 4,000 bichloride mercury solution, followed at once by a 1 to 40 carbolic acid. Although he has made many digital intra-uterine examinations under the condition now considered (infection within six days after delivery at term) the reviewer has never felt the wall so firm that it could yield any grating sensation through a curette. He knows of one case wherein a rent one inch long was made through the uterine wall by an operator who was scraping for that not-to-be-had grating sensation. Immediate suturing via abdominal opening saved the patient.

The other subjects receive the same conscientious attention from the authors, whose writings show honest study, firm conviction of individual opinion, and courageousness of expression.

MICHINARD. . . .

The Medical Epitome Series—Medical Jurisprudence, by EDWIN WELLS WRIGHT, M. D. Lea Bros. & Co.

This is a clear presentation of the essentials of medical jurisprudence, arranged for the student. No pretension discursive text is made and the book fulfills its purpose thoroughly, *viz.*: that of a convenient and apt text.

DYER.

Publications Received.

The Year Book Publishers. Chicago, 1903.

The Practical Medicine Series of Year Books, Edited by Gustavus P. Head, M. D.—Volume VIII, *Materia Medica and Therapeutics, Preventive Medicine, Climatology, Suggestive Therapeutics, Forensic Medicine.*

The Practical Medicine Series of Year Books, Edited by Gustavus P. Head, M. D.—Volume IX, *Physiology, Pathology, Bacteriology, Anatomy, Dictionary.*

J. B. Lippincott Company. Philadelphia, 1903.

International Clinics, Volume II. Thirteenth Series, Edited by A. C. J. Kelly, M. D.

Nurses' Guide to Surgical Bandaging and Dressings, by Wm. Johnson Smith, F. R. C. S.

The Principles and Practice of Surgery, by George Tully Vaughan, M. D.

A Narrative of Medicine in America, by James Gregory Mumford, M. D.

A Nurse's Handbook of Obstetrics, by Joseph Brown Cooke, M. D.

P. Blakiston's Son & Co., Philadelphia, 1903.

Modern Bullet Wounds and Modern Treatment, by Major F. Smith, D. S. O.

A Compend of Diseases of the Skin, by Jay F. Schamberg, M. D.

A Compend of Human Anatomy, by Samuel O. L. Potter, M. D.

A System of Physiologic Therapeutics, Edited by Solomon Solis Cohen, M. D. Volume VII. *Rest Mental Therapeutics, Suggestion*, by Francis X. Dercum, M. D.

Diseases of the Nose and Throat, by Charles Hunton Knight, M. D.

A Handbook of the Diseases of the Eye and Their Treatment, by Henry R. Swanzy, A. M.

Wm. Wood & Co., New York, 1903.

Manual of the Diseases of the Eye, by Charles H. May, M. D.

Lea Bros. & Co., Philadelphia and New York, 1903.

A Dictionary of Medical Science, 23d. Edition, by T. L. Stedman, A. M., M. D.

A Manual of Obstetrics, by A. F. A. King, M. D.

Progressive Medicine, Edited by Hobart Amory Hare, M. D., Volume III.

David McKay, Philadelphia, 1903.

Consumption a Curable and Preventable Disease, by Lawrence F. Flick, M. D.

D. Van Nostrand Co., New York, 1903.

Radium, and Other Radio-Active Substances; Polonium, Actinium, and Thorium, by William J. Hammer.

D. Appleton & Co., New York and London, 1903.

Diseases of the Ear, by Edward Bradford Dench, M. D.

Miscellaneous.

Transactions of the Medical Society of the State of New York, 1903.

Transactions of the Seventieth Annual Session of the Tennessee State Medical Association, 1903.

Report of the Board of Administrators of the Charity Hospital, 1902.

Reprints.

Pathology and Treatment of Smallpox, by Nelson D. Brayton, M. D.

Papilloma of the Sole, by Douglass W. Montgomery, M. D.

The Dermatoses Occurring in Exophthalmic Goitre, by James Nevins Hyde, M. D. and Ernest L. McEwen, M. D.

The Treatment of Chronic Catarrhal Deafness (Otitis Media Catarrhalis Chronica), by George W. Hopkins, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR SEPTEMBER, 1903.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	14		14
Intermittent Fever (Malarial Cachexia)	3	5	8
Small Pox.....			
Measles.....			
Scarlet Fever	1		1
Whooping Cough.....	2	1	3
Diphtheria and Croup.....	5	1	6
Influenza			
Cholera Nostras.....			
Pyemia and Septicemia	4		4
Tuberculosis.....	35	36	71
Cancer.....	19	6	25
Rheumatism and Gout		1	1
Diabetes	2		2
Alcoholism			
Encephalitis and Meningitis.....	7	3	10
Locomotor Ataxia.....	1	1	2
Congestion, Hemorrhage and Softening of Brain.....	14	4	18
Paralysis	7	1	8
Convulsions of Infants	6	3	9
Other Diseases of Infancy	13	4	17
Tetanus.....	4	9	13
Other Nervous Diseases			
Heart Diseases.....	28	20	48
Bronchitis	4	5	9
Pneumonia and Broncho Pneumonia.....	11	9	20
Other Respiratory Diseases.....		2	2
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach	1	2	3
Diarrhea, Dysentery and Enteritis.....	17	8	25
Hernia, Intestinal Obstruction.....	4	1	5
Cirrhosis of Liver.....	8	1	9
Other Diseases of the Liver	5	2	7
Simple Peritonitis		1	1
Appendicitis.....	1		1
Bright's Disease	32	25	57
Other Genito-Urinary Diseases.....	4	4	8
Puerperal Diseases	8		8
Senile Debility.....	8	9	17
Suicide	3	1	4
Injuries.....	15	9	24
All Other Causes.....	22	6	28
TOTAL.....	309	180	489

Still-born Children—White, 22; colored, 11; total, 33.

Population of City (estimated)—White, 227,000; colored, 83,000; total, 310,000.

Death Rate per 1000 per annum for Month—White 16.33; colored, 26.02; total, 18.93.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.04
Mean temperature 78.
Total precipitation 3.32 inches.
Prevailing direction of wind, northeast.

New Orleans Medical and Surgical Journal.

VOL. LVI.

DECEMBER, 1903.

No. 6.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

The Effects of Hypertrophy of Pharyngeal Tonsil on the General Health.*

By W. SCHEPPEGRELL, A. M., M. D., New Orleans, La.

The subject of hypertrophy of the pharyngeal tonsil has been brought before this Society on a number of occasions, and were it not for the importance of the subject, it might need some apology. Its importance, however, is I believe a sufficient justification, especially as I propose at this meeting to treat the hypertrophy of the pharyngeal tonsil from a more general standpoint—the effects on the general health.

Physicians in general are realizing more and more the influence of any abnormal condition of the lymphoid tissues in the nasopharynx, and there are now few physicians who, in summing up the possible

* Read before the annual meeting of the Louisiana State Medical Society, at New Orleans, La., April 28, 1903.

causes of any special disease in children, do not include in this list the enlargement of the pharyngeal tonsil. The relation of abnormal conditions of the pharyngeal tonsil to diseases of the middle ear and catarrhal affections of the nose and throat is now so generally accepted that, when we find the latter conditions in children, we are at once led to an examination of the nasopharynx, expecting to find in this locality the etiologic factor.

A thorough examination of the nasopharynx for hypertrophy of the pharyngeal tonsil is not, however, a very easy undertaking. With a somewhat extensive experience in this branch of medicine, both in hospital and in private practice, I admit that a satisfactory examination of the nasopharynx in children requires tact, delicacy and experience. We are so familiar with the array of symptoms incident to this condition, that we are led to expect some abnormality of the pharyngeal tonsil, and can very often even make a differential diagnosis leading to this conclusion. But this will not suffice to subject the child to a surgical operation, which, like other operations, is not free from a certain element of danger.

The simplest method in most cases is no doubt the digital examination, the finger being passed through the mouth and above the soft palate, thus enabling us to arrive at a fairly satisfactory opinion as to the size and form of any existing adenoids. This method, however, savors not a little of brutality, and is resented usually not only by the patient but also by the parents. Of course, in the demands on our time in hospital practice, we are compelled frequently, in justice to the other patients, to adopt this rapid method of examination; but I believe in private practice it is our duty to ourselves and to our patients to adopt the slower and more tedious but more satisfactory examination by means of the rhinoscopic mirror. We must remember, while treating the throat of the patient, that we should not neglect the general health and the digital examination in some children produces considerable nervous disturbance as well as a fear of subsequent treatment, as the child always expects to be subjected to a similar violence. Admitting then, that the examination by the mirror is much more tedious and more difficult, I think, wherever possible, we should give the preference to this method.

The location of the hypertrophy of the lymphoid tissue in the

nasopharynx may cause difficult breathing, either directly by obstructing the posterior opening of the nostrils, by causing congestion and inflammation of the mucous membrane of these cavities, or by giving rise to secretions which may likewise seriously interfere with the nasal breathing of the child. Realizing the importance of the nasal organs in the function of respiration, in cleansing, moistening and warming the air before its passage into the throat and lungs, we can easily realize that any disturbance of this function will have an injurious effect on the general health by giving rise to irritation and inflammation of the throat and bronchial tubes. In addition to these direct disturbances, we may have other pathogenic factors. Any one who has seen the restless sleep of a child suffering from hypertrophy of the pharyngeal tonsil, its efforts to breathe, its continued tossing and snoring, will realize that this must be a severe trial to the nervous system and that the child can not derive from this the necessary recuperation that comes from normal sleep. As a matter of fact, in marked cases we note pronounced disturbances of the nervous system with disposition to irritability and sometimes even to hysteria.

So opposed apparently are the respiratory organs to any form of breathing except the normal method through the nostrils that in cases of nasal obstruction, such children during sleep make continued efforts to breathe through the nostrils, the mouth remaining closed until apparently the first stage of suffocation takes place. Under these circumstances evidently there is an insufficient supply of oxygen and an imperfect elimination of carbonic acid gas, so that the child suffers from a slow form of carbonic-acid poison, the effects of which are soon noted in the general health, producing anemia, lack of appetite, imperfect action of the digestive organs and other disturbances.

Even in cases in which the direct obstruction to the breathing is not so great by reason of the smaller size of these vegetations, the resulting congestion in the nostrils and the excessive secretions may produce, although not to the same extent, these general symptoms. Where there is an abnormal discharge formed by adenoid vegetations, which is usually the case to a more or less extent, this secretion may become fetid through retention in the nasal passage

or in the nasopharynx, and these being swallowed, may assist in setting up digestive disturbance, and thus affect the general health.

Bronchial disturbances due to obstruction of the nostrils from hypertrophy of the pharyngeal tonsil are of so frequent occurrence that they need no special mention here except for the effect that such bronchial affections may have on the general health. Less frequently, however, we have a spasmodic disturbance of the respiratory organs such as asthma, which may owe its origin to this cause. Quite recently a case of this kind was referred to me in which the child suffered from recurrent bronchitis, each attack being accompanied by paroxysms of asthma. While the obstruction to the child's nasal breathing was not very marked, the physician wisely concluded that the cause might be in the nasopharynx, and, on my examining the patient, I found hypertrophy of the pharyngeal tonsil, which, while not sufficient to impair very markedly the nasal breathing, was large enough to offer some obstruction both directly and by causing congestion of the mucous membrane of the nostrils. The association of this condition to both the bronchitis and asthma was clearly demonstrated by the fact that after the operation for the removal of the growth, the attacks, which had persisted for several years, did not occur.

Examples of the beneficial influence on the general health by the removal of nasopharyngeal vegetations are so common that it would be tedious to give any prolonged description of such cases. As an illustration of this class of cases, however, I will mention one which I treated a few months ago. In this patient also the enlargement of the pharyngeal tonsils was apparently not so marked as to offer any very serious obstructions to breathing, and yet the child suffered from restless sleep and spasmodic efforts to obtain air. The patient was thin, anemic and morbid, seemed indisposed to play, and had that form of dullness of the intelligence known as "aproxia," an apparent inability to fix his attention not only on his studies but even on his play, an unusual condition in a boy of six years. The removal of the hypertrophy was followed by an entire change in the disposition of the child, which now became active, bright, and soon increased considerably in weight, showing the improvement in the digestive and assimilating organs. This case is mentioned not because it is unusual, but simply as

a type of this class of cases. In fact so confident am I of such a result after this operation in children in which there is a subnormal condition of the general health, that I am led to suspect that the abnormal tissue has not been entirely removed if this result does not take place. Of course, the anemia and depressed health of the child may be due to other causes, which, however, should be excluded if possible before the radical treatment of such a case is undertaken.

Before concluding this paper, it would be well to say a few words regarding the operation of adenotomy. Through a careful inspection by means of the rhinoscope mirror, we can form a clear idea of what special instruments are best adapted for each operation. I give the preference, whenever possible, to one of the forms of curettes, as they are less apt to be followed by unpleasant reaction. With the cutting forceps, a part of the mucous membrane may be torn which is not removed with the cutting edges, and such a crevice, being difficult to sterilize by the normal secretion, may become a focus of infection and thus cause an inflammatory reaction not only in the nasopharynx but even in the Eustachian tube and middle ear. It is my belief that the fact that in my practice no inflammatory disturbance in the middle ear has followed such an operation is partly due to my precaution in avoiding wherever possible, the use of the cutting forceps.

The question as to whether an anesthetic is advisable or otherwise has been discussed. Many specialists in Germany prefer to operate without one. I believe, however, that a greater accuracy is derived from the use of a general anesthetic and that therefore, the better result from the operation justifies us in assuming the degree of risk inevitable in all anesthetics.

Regarding the most appropriate anesthetic to be used in this operation, I would state that, while I have tried several, I give the preference to ethylic bromide, using the preparation made by Merck, and kept in a sealed tube until ready for use. I was led to the use of this anesthetic in the practice of my distinguished confrère, Dr. deRoaldes, and have continued to employ it with entire satisfaction and without one untoward result, during the last ten years. Statistics which I recently investigated, showed a mortality of 1 in 20,000 from the use of ethylic bromide, but I believe if care were

used in the proper preparation, the selection and in the administration of this anesthetic that the results would be far better even than this. I have used it many hundred times and as already stated, have never had an unfavorable result.

The period of anesthesia is quite short, therefore, all preparations should be completed before the operation is undertaken. In my practice, I even have the gag placed in the mouth of the patient, having devised a special inhaler permitting the anesthetic to be applied with the gag already in position. When the patient is sufficiently under the anesthetic, the nurse or assistant simply opens the gag, and, the instruments having been carefully selected and placed in position, no time is lost and the operation is made as short as possible.

With the safeguards here mentioned, with the proper care taken in the examination and in the preparation of the patient, I know of no operation in this branch of surgery which gives so quickly and so surely a beneficial result to the patient as the operation for the removal of hypertrophy of the pharyngeal tonsil.

Hyoscin Hydrobromate in the Treatment of the Morphin-Habit.*

BY LOUIS ABRAMSON, M. D., Resident Physician Shreveport Sanitarium, Shreveport, La

The successful and quick treatment of the morphin habit has long been a much sought for remedy. The alarming frequency of this addiction is known only too well to the medical profession, among whose ranks it claims, alas, too many victims. The old treatment of the gradual reduction is tedious and unsatisfactory, both to the doctor and the patient. That a short method is the one that strikes the popular fancy is proven by the great popularity of the "Quick Cure" concerns that spring up and flourish all over the country. In hyoscin hydrobromate we have a drug by which the rapid cure of the morphin habit may be accomplished. I believe it is the drug used in all the secret cures, or at least it forms the basis of the treatment, and it is the drug used in those Sanitariums that advertise to cure in from twelve to thirty-six hours. When my atten-

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tion was first called to the subject I began looking it up, but could find nothing in the books at my command that assisted me at all; there was but one method given, the gradual reduction, and but very little attention was paid to it; and this I believe has been the attitude of the profession generally. A doctor getting one of these unfortunates under observation is only too anxious to get rid of him, and sends him to some hospital or sanitarium the first opportunity. However, since I began the treatment I have read accounts in the medical journals of its successful use in various parts of the country. While I have said it was a morphin cure, it will also cure cocain addiction, and with slight modifications whisky. Cocain is seldom taken alone, but in connection with morphin, and all the cases I have treated for cocain have been for morphin also. I have treated about twenty cases in the past two and a half years, but I will not attempt to enumerate each case, but to give a general outline of the treatment, as one case is a good example of all. We must regard the drug addiction as a disease, and remember that we are treating a diseased human being, and the fundamental principles that underly the practice of medicine generally hold good here.

It matters not if the patient is taking two grains or twenty grains a day, the effect is the same, and hyoscin hydrobromate seems now to outline the treatment, we can modify to meet the indications in each case: Patient comes in and is given a careful examination to be as an effective antidote for the large amount as for the small. to ascertain if any other disease exists, and to ascertain the condition of the heart, lungs, kidneys, etc. As a rule the patient will complain of some painful trouble for which the morphin has been taken, but I disregard this and every other assertion they make. After the examination I question the patient as to the amount of the drug used and the interval of the dose, and after promising him not to let him "suffer" and to let him have it when required I take possession of all morphin, cocain, etc. He is then given a warm bath and put to bed.

Small doses of Epsom salts are given at frequent intervals until free purgation is produced, and this effect is kept up from twelve to eighteen hours.

During the period the patient received the usual dose of morphin administered by the nurse. Usually the interval is drawn out or

dose reduced, but enough is given to keep the patient tractable. From the commencement of the treatment strychnin sulphate, grain 1-30, is given by a needle every four hours and sometimes spartein sulphate in the same dose. And at times both are given, depending on the case. After this preliminary purgation the hyoscin is commenced. It is given by needle commencing with grain 1-100 which is repeated every four hours, and the effect carefully watched. Hyoscin hydrobromate is a powerful and dangerous drug and must be administered with caution.

The doctor ought to see his patient at least every four hours during the day. The hyoscin is kept up varying the dose and the interval until the patient is fully under its influence. Its effects are to slow the pulse, dilate the pupil, make the mouth and tongue dry, destroy the taste for food and to produce a restless delirium accompanied by strange hallucinations, with utter lack of co-ordination of the muscles of the leg. After the drug is exhibiting its fullest physiological effect the hyoscin is stopped.

The amount necessary to do this varies with each patient. Sometimes it is produced by three or four doses each of 1-100 each, and sometimes much more is required. I have given as much as 1-25 every two hours for thirty-six hours continuously without producing hallucinations, and without producing any marked effect on the patient. But still in this case the cure was just as effective. If the pulse gets too slow the hyoscin is stopped at once. In those persons that I have treated it has the uniform effect of slowing the pulse, and keeping it slow until the effect wore off. During the time that hyoscin is given the patient eats very little but sleeps fairly well. During the time the period the patient is taking hyoscin an attendant is in the room constantly. After the effect wears off, which takes two or three days, the worst time comes with some patients. They complain bitterly of pains in the back and legs; however, with a little ingenuity this period is tided over. A warm bath followed by pilocarpin hydrochlorate to produce a profuse sweat and free salivation has a good effect.

An occasional dose of bromide potassium and either trional, or sulfonal, in twenty grain doses at night insures a good sleep and in a day or two the appetite returns. If the patient is too uncomfortable an occasional dose of hyoscin hydrobromate is given in this

period. If diarrhea occurs a few doses of bismuth subnitrate controls it. Owing to the free purgation at the beginning of the treatment this rarely occurs. After a day or two the patient eats well and sleeps well without any hypnotic, and a cure is accomplished. The whole treatment takes about ten days. When the appetite returns the patient eats ravenously and improves rapidly, and gains in weight each day. Color returns to the face and the eye gets clear and the whole expression undergoes a remarkable change.

Although the morphin is withdrawn in from twenty-four to thirty-six hours, and the effect of the hyoscin in five or six days from the beginning of the treatment, I always like to have the patient under treatment longer.

I think the after treatment should last for twenty-five to thirty days, as I think that the after treatment is very essential. Most of the patients feel so well at the end of twelve to fourteen days that it is almost impossible to keep them longer. The hyoscin hydrobromate destroys the desire for morphin but it is essential to build up the patient and restore tone to the nervous system. Tonics of iron, strychnin, etc., are used freely in the convalescent stage. In those patients that I have treated I have had but two to return to the habit and one of them took the treatment the second time and was easily cured.

Some Practical Points in Chloroform Anesthesia.*

BY DR. T. E. SCHUMPERT, Shreveport, La.

It is not the purpose of this paper to go into the minute details of chloroform administration or even hint at complications incident to its administration, histology or physiology. By bringing out some of the common every day practical points, however, I hope to refresh the minds of some, and provoke a discussion whereby I may be a beneficiary. I must confess that the more I use chloroform the more am I afraid of it and convinced that I am at its mercy, I think therefore, I can not be blamed for crying help when brought in daily combat with such a dangerous agent. I believe,

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though, that the relief is not in the hands of the surgeons or physiologist, but the chemist. While surgery and physiology have done wonderful work towards reducing the mortality to a marvelously low percentage, I believe if the chemist will now devote as much energy and can find a way to eliminate the danger from chloroform, as he has extracted the bitter from quinin, etc., it will be the greatest boon to the surgical world of to-day; but while this is being done, through the lack of something better, we will continue its use and consider some practical points, in its administration.

I have selected chloroform for my subject, because it is the general anesthetic which I employ and the one most popular in the South.

In selecting patients for chloroform anesthesia we class, as best risks, middle aged people, that are nearly normal in all organs of the body; it is not always one's good fortune, however, to procure such a desirable class of patients and when we do, a most lamentable fact, there is yet the feeling of insecurity that possesses us.

In my experience, old people as a class have stood chloroform well. The fact that they have attained old age is an evidence that they must have been primarily well constructed and tissues well preserved. I find, too, that valvular diseases of the heart are of minor importance so far as chloroform is concerned, and functional diseases of none at all. It is only in cases of myocarditis that any special stress should be laid upon diseases of this organ; no condition of the heart is an absolute contra-indication to the use of chloroform.

Chloroform is a dangerous remedy. Why? Simply because it is impossible to examine a patient and say to him positively that he can or can not take it; if we could do this with absolute certainty, then it would not be dangerous and we would never lose our patients. Although early maturity and middle life are considered the best ages, yet every serious accident that I have had, has been in this class of patients, without any physical defect as far as could be detected, of heart, lungs or kidneys and with the unfortunate accident occurring in the early part of the administration of the anesthetic.

I have two cases in mind just now, one a young man, 26 years of age, the most perfect physical specimen that I have ever seen.

There was absolutely no organic trouble of any description that the most careful scrutiny was able to detect. His heart, lungs, and urine were examined carefully and the usual preparation for an appendectomy had been made. Several physicians were present to witness the operation. When the anesthetic was begun, I stood by my patient's side waiting until reflex was abolished. Suddenly his respiration ceased and just as suddenly efforts to restore it were begun. We kept up artificial respiration, with his head declined, for thirty minutes, hoping vainly and at intervals perceiving as we imagined some vague effort at returning life. Every minute seemed an hour, as we gave hypodermics of brandy, ether, strychnia and atropin. When further efforts were useless and the fight abandoned, I was quite sick from fatigue and the nervous strain, and went to bed, while the unpleasant duty of notifying his young wife of this sad occurrence was being performed by a friend. Another case was that of a young woman who apparently was just as good a subject as the one previously mentioned. I was to do a laparotomy for some ovarian trouble, but before the abdomen was entered, without warning, she ceased to breathe and although everything possible was done for her, save, perhaps, the use of the Fell O'Dwyer apparatus, which I had not, my patient died. These were both hospital patients and the anesthetic was administered by experienced anesthetists.

Out of 130 deaths from chloroform gathered by Hewit and reported through the *British Medical Journal*, 35% died either before the operation was begun, or during a short or trivial operation. Of 232 cases collected by Compte, 50% died before anesthesia was complete. Kappeler finds that out of 75 cases, 90% died within the first fifteen minutes. It would appear, therefore, from the above statistics that the main source of responsibility lies in the toxic action of the drug itself and is much more dangerous during the first stage than in prolonged cases where tolerance has seemingly been established; it also shows that the danger is not in proportion to the time of its administration or amount inhaled, yet it seems reasonable to demand of the surgeons a fair amount of dexterity and skill. Useless manipulation and deliberations on part of the surgeon is a waste of time and should be avoided.

There are three causes for chloroform fatalities:

First, on account of shock, these patients die in the latter stages of severe, prolonged operations even though the anesthetic is faultlessly given.

Second, because of faulty technic on the part of the anesthetizer.

Thirdly, one account of the idiosyncrasy of some patients for the drug—I place this class of patients among those that die, either before thorough narcosis or in the very early stages of the operation.

The remedy for the first class of patients, “shock,” would therefore be to lose as little time in operating as is expedient with fair technic and ultimate good result; while it is foolish to hurry through an operation, it is almost criminal on the part of a surgeon to prolong the anesthetic unnecessarily.

Then, again, every precaution should be taken to prevent shock, by keeping the patient well wrapped with blankets and the use of hot water bags, hypodermics of morphin, atropin, strychnia and brandy. Excessive loss of blood also should be guarded against with every precaution available. I have never known the excessive loss of blood in adults to have any immediate bearing on the anesthetic; theoretically, however, it would seem to be an important factor and should be guarded against most vigilently.

As to “Faulty technic.” There is scarcely a physician in the South who has not at one time or another been called upon to administer chloroform and for that reason every medical student should have thorough and practical training while at the medical school. He should be profoundly impressed with the importance of the position which he occupies in administering this most powerful agent. Before chloroform is given, however, the question to be considered is this—can not local anesthesia be substituted for general narcosis. No one can question the fact that chloroform is frequently given for operations which could just as well be performed under local anesthesia and many deaths have occurred in just this class of cases.

The induction of chloroform anesthesia should be slow and just sufficiently profound to permit the operation without disturbance or interruption by the patient. Above all things the anesthetist should give his entire attention to his work and should never crowd the anesthetic in order to hasten the anesthesia.

It should be impressed on the student that in healthy individuals, without doubt, a general anesthetic is dangerous to life.

The open drop method of giving chloroform is safer than the more complicated methods. The chloroform should be slowly dropped on the mask. The patient should have air and plenty of it. Narcosis should be produced slowly with the least possible amount of chloroform, and after narcosis is complete it should be continued in the same slow, careful manner. The student should be taught to never push chloroform and that it should be immediately removed in the development of cyanosis or any change in the pulse, pupil or respiration; that marked palor, cold perspiration, feeble or imperceptible pulse and very slow respirations are signs of immediate danger and that either the pulse or respiration may stop gradually or suddenly. Students should be taught that too rapid administration of chloroform may produce holding the breath, tonic or clonic spasms, struggling or excitement, also dangerous respiratory spasms or cardiac syncope. He should be taught to never begin anesthesia without preparing himself with tongue forceps, mouth gag and hypodermic, and to first physically treat his patient by soothing his anxious mind and thus gain his confidence. He should be taught that there is no sign of danger in the administration of chloroform that we can depend upon absolutely, but there are signs which should have prompt attention when they do appear, viz.: cessation of respiration or heart action and that great benefit is to be derived by first pressing forcibly upon the chest several times to force out as much as possible the air laden with chloroform and then by means of artificial respiration supply pure air in its place, at the same time opening the mouth and pulling forward the tongue.

“Idiosyncrasy”—Death may occur from an overdose resulting in too concentrated vapor, exaggerated, or breathing of vapor not unusually concentrated.

Some Experience with Diphtheria and its Treatment.*

BY DR. O. M. PATTERSON, Bastrop, La.

Case 1. On June 26, P. M., 1901, I was called to see A. H., age about five years, female, who had a chill followed by fever and after

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the fever had lasted a few hours, she had spasms. I examined her and diagnosed a case of malarial intermittent fever and prescribed accordingly; with the promise to call again next morning—which I did and found the temperature about normal. Just before taking my leave, the mother said: “Dr., she has complained of her throat and I would be glad if you would examine her throat before leaving,” which I did and found a small white ulcer on one tonsil with some redness and swelling of adjacent parts. I prescribed a gargle together with a continuation of the antimalarial treatment. On July 4, the father came to my office and reported that he did not think the child was worse but that there was considerable swelling of the glands of the throat externally. As soon as this report was received I hastened to see the patient. I found her nervous, with a moderate fever and the glands of the throat considerably swollen and by examination of the throat I discovered that the white patch had spread considerably and it continued to attack adjacent parts until the pharynx and nasal fossa were attacked in their entirety. In this case the inflammatory surface was confined to the pharynx and nasal fossa, the larynx not seeming in the least to be affected thereby, not interfering with the breathing or speaking. Now as to a true diagnosis, I never did arrive at—until it was too late to do my patient any good. Living several miles in the country and somewhat remote, thinly settled and no chance of contagion so far as we could tell. I called in two other physicians but we could not arrive at a satisfactory diagnosis. We were satisfied at least that it was either scarlet fever or diphtheria. Not having had any experience with diphtheria we were inclined to diagnose scarlet fever. The treatment consisted of calomel followed with quinin sulphate, gargles of chlorate potash, saline solution and myrrh. Tinct. iron locally and internally as well; also sulphide of calcium, a spray of phenol sodique and minor treatment was used besides. Patient died July 10, P. M.

Case 2. Sister of Case 1. Female, aged about two years. Was taken similarly on August 1, or at least I was called on that date and found patient with fever and sore throat and upon examination I found a white ulcerated surface as in the previous case and as I had gained something from experience I diagnosed at once diphtheria. At about 5 P. M. on the third day I injected 1,000 units

of a reliable antitoxin serum between the scapulæ and in half hour the child was resting quietly and by next morning temperature was normal and it seemed to be on the road to recovery. I did not repeat the dose as there was no occasion for a repetition as it recovered gradually from that time on.

Case 3. Male, aged six years, had a suspicious case of sore throat on August 28, 1901. I was called in consultation. After a careful examination I diagnosed diphtheria and treated it accordingly, to-wit: 1,000 units of antitoxin injected between scapulae at 5:20 P. M. and this child was very nervous and restless and had every indication that the disease was rapidly growing worse. By morning his temperature was normal, he had rested well during the night and the membrane had made no advancement and this case, as in No. 2, without any repetition of the antitoxin, made a rapid recovery.

Now the items of special interest to me are these:

(1). The source of infection. There had not been a case in our town in years. Case No. 1 lived several miles in the country and had not been in contact with it at all so far as we could find out.

(2). All these cases were pharyngeal diphtheria, not interfering with speaking or breathing.

(3). The promptness with which these last two cases were relieved with antitoxin. Then how careful we should be as to diagnoses. We should examine our cases thoroughly and try and arrive at a correct diagnosis as upon this must depend successful treatment.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. E. J. GRANER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING OF OCTOBER 24, 1903.

DR. GRANER, President, in the Chair.

DR. E. D. FENNER read a paper on

Report of Cases of Pernicious Malaria.

It is the purpose of this paper to report the history of some eight or ten cases, illustrating the more common types of pernicious malarial fever, and giving only such a brief resumé of the symptoms of the various forms as may be necessary to refresh the memory of those who have not recently reviewed the subject. At the outset I wish to acknowledge my indebtedness to Mr. Kahn, one of the internes of the Charity Hospital, in whose service these cases occurred, for the record of symptoms and treatment which he conducted with my sanction.

Pernicious malaria is said always to be due to the estivo-autumnal parasite. The pernicious symptoms may show themselves in the beginning or they may be preceded by a number of ordinary paroxysms. There are a number of distinct pernicious types. The most common is the comatose form. There are generally several days of ordinary malarial infection before any cerebral symptoms manifest themselves, or at any rate there may have been only slight malarial somnolence. Then the stupor deepens or the delirium increases and the patient becomes comatose. In other cases profound unconsciousness and irregular stertorous respiration are suddenly developed and the resemblance to apoplexy is marked.

In comatose malaria the temperature curve has no particular

type. The face is usually congested, but it is not always so, since where there has existed a pronounced malarial anemia the countenance may be pallid. The pupils may be either contracted or dilated and they generally react to light, although occasionally they are unequal. The pulse may be either slow or weak and is frequently of high tension, although it may be weak and compressible, particularly towards the end of the paroxysm. The respiration is not infrequently of the Cheyne-Stokes type. The skin is hot and dry, but toward the end of the paroxysm is bathed in a profuse sweat. Slight jaundice is often seen.

Sometimes the coma and its associated symptoms disappear with the decline of the fever and recovery may occur from what appeared a hopeless condition. But unless treatment is prompt and energetic a second and fatal attack rapidly occurs. In a number of cases the coma is succeeded or replaced by a severe delirium, which may be maniacal.

The following cases illustrate the comatose form :

Case No. 1.—*Comatose Malaria. Cured.*

John Kelly, white, 26 years old, was admitted on June 2, 1902. At the time of his admission his temperature was 102° F. This was the fifth day of his illness, and for four days previous he had had a daily chill and fever. Nothing in his past history was elicited, except a confession of chronic alcoholism for the past four or five years. A calomel purge, and sulphate of quinin, 5 gr. every four hours, were ordered at once. The next day, June 3, the patient went into a state of coma, preceded by delirium and vomiting of bile stained fluid. The heart and lungs appeared normal. There was slight jaundice, not very marked. The spleen was enlarged, being readily felt below the costal arch. The pupils were dilated at first but considerably dilated during the coma. Microscopic examination of the blood revealed free pigment, but no plasmodia malarie.

TREATMENT—Calomel and soda 5 gr. each at the beginning. Sulphate of quinin 5 gr. every four hours the first day. After coma developed 20 minims of a 50 per cent. solution of bi-muriate quinin and urea every four hours by needle for four days. Then 40 gr. a day for seven days. Strychnin sulphate and liquid diet were given throughout the attack. During convalescence

Fowler's solution of arsenic, citrate of iron and quinin three times a day.

The patient was discharged cured on June 30.

Case 2.—*Comatose Malaria. (Uremia). Death.*

Edward Cambre, white, 48 years old, was admitted on June 14, 1902, in a state of deep coma, but had no convulsions. Urine drawn by catheter contained no albumen. Temperature 103° F. Respirations weak and rapid; pulse weak and rapid and getting worse until finally it was hardly perceptible. The next day, June 15, the pathologist reported estivoautumnal (crescentic) organisms in the blood; hyalin casts, but no albumen in the urine.

Twenty minims of a 20 per cent. solution of bi-muriate of quinin and urea were given by needle every four hours for three days and was stopped, the patient having recovered from the coma and become delirious. On the fourth day the coma returned. The quinin was again resorted to, but on June 19, the fifth day, the patient died. Throughout the attack the bowels were very loose.

Autopsy furnished the following report: Weight of organs—lungs, right 16 ounces, left 14 ounces; heart 12 ounces; spleen 10 ounces; liver 4 pounds 6 ounces; pancreas 2 ounces; kidneys, right 6 ounces, left 6 ounces.

Body—White male, fairly well nourished. Pupils dilated; sclerotics yellowish white. Post-mortem rigidity marked.

Heart, normal; spleen enlarged, brownish grey in color, soft and mushy. Liver, greyish brown in color, congested, slightly cirrhotic. Gall bladder empty. Pancreas, normal. Lungs, normal. Kidneys congested, cortex slightly swollen, evidence of acute nephritis.

Microscopic examination of blood from the spleen showed estivoautumnal (crescentic) plasmödia.

Case 3.—*Comatose Malaria. Cured.*

T. S. Doyle, white, 43 years old, was admitted on June 25, 1902, in a state of profound coma. About one ounce of urine was obtained by the catheter and found free from albumen. A relative from whom the history was obtained stated that the patient had been sick for seven days.

The temperature by axilla, which was 100.6° F. when he

was admitted rapidly rose within two hours to 102.6°. The face was flushed and the spleen could be easily felt, appearing to be about four times its normal size. Comatose malaria was at once suspected and 10 gr. of bi-muriate of quinin and urea was given by needle every hour for three doses.

At first there was constipation and almost total suppression of urine, for which a large hot saline enema was given with good effect.

Under the influence of the quinin the man recovered from the coma, becoming delirious as he gained consciousness, but being given plenty of water to drink he soon became perfectly rational. Fifteen hours after admission he was only a little stupid. For three days the quinin was continued by needle in daily doses of thirty grains. On the seventh and fourteenth days the injections were repeated and for two weeks Fowler's solution, 10 minims, was given three times a day. On July 12, the patient was discharged cured.

Case 4.—*Pernicious Malaria (delirious type). Chronic Parenchymatous Nephritis. Death.*

J. A. Wright, white male, 17 years old, was admitted on August 6, 1902, at 8 P. M. He was so delirious that no history of his present illness could be obtained from him, except that he had been sick for five days. He was known to be a nephritic, however, having been treated for the disease in the Hospital.

When first seen his face was flushed. He was very talkative and his delirium resembled delirium tremens. His temperature was 100° F.; the pulse strong and regular; the urine full of albumen. The spleen was slightly enlarged; the other organs apparently healthy.

Within two or three hours the temperature rose to 104.5° and sponging was ordered, but the fever was very persistent. The next morning the blood was examined and reported free from plasmodia malariae. Coma gradually developed and the patient died on August 8. In spite of the negative blood report the bi-muriate of quinin was begun on August 7

An autopsy was obtained with the following results: Weight of organs—lungs, right 18 ounces, left 15 ounces; heart 8

ounces; spleen 18 ounces; liver 4 pounds 10 ounces; pancreas 2 ounces; kidneys, right 6 ounces, left 5 ounces.

Body—White male, fairly well nourished. Pupils contracted; sclera white. Post-mortem rigidity marked. Heart normal in size; valves and endocardium normal. Spleen enlarged, slate colored, flabby and congested. Estivoautumnal (crescentic) plasmodia found in organ by microscopic examination. Lungs normal. Liver enlarged, flabby, slate colored, congested. Gall bladder full. Pancreas normal. Kidneys congested, capsules adherent, surface somewhat granular, cortex swollen.

Case 5.—*Comatose Malaria. (Lobar Pneumonia.) Death.*

Ralph Patton, white, 40 years old, was admitted on August 16, in a state of profound coma. The urine was immediately drawn, but on examination was found free from albumen. The pupils were dilated. The base of the right lung was consolidated in the second stage of pneumonia, all the physical signs being well marked. The spleen was very much enlarged and easily palpated. The temperature was 103° F. Examination of the blood revealed a double malarial infection, the estivoautumnal (crescentic) and tertian organism being found.

Bi-muriate of quinin and urea 10 gr. every four hours was given by the needle, with good effect, the fever falling, the spleen diminishing remarkably in size, and consciousness being recovered. Death was due to the pneumonia and sheer exhaustion.

The autopsy report is appended.

Weight of organs—Lungs, right 29 ounces, left 14 ounces; heart 10 ounces; spleen 10 ounces; liver three pounds 10 ounces; pancreas 2½ ounces; kidneys, right 7 ounces, left 7 ounces.

Body—White male, emaciated; sclera clear; pupils contracted; post-mortem rigidity marked.

Heart slightly dilated. Lungs, right bound down, lower lobe consolidated in the third stage of pneumonia; left edematous. Spleen slate colored, soft and flabby; perisplenitis, organ soft and mushy. Liver slate colored, soft and flabby, mottled grey on sections. Gall bladder full. Pancreas normal. Intestines normal. Kidneys intensely fatty, otherwise normal.

Case 6.—*Comatose Malaria. Cured.*

William Carey, white male, 32 years old, was admitted on August 28, 1902, in profound coma. Pupils dilated, spleen greatly enlarged urine free from albumen. Temperature 103.6° F. Respirations 12 to the minute. Malaria was suspected and the temperature having been reduced by sponging to 101°, bi-muriate of quinin and urea was given by the needle, 40 gr. being used the first day and the same amount on the second day. The temperature responded promptly and on the third day consciousness was regained. For the three following days sulphate of quinin 5 gr. every four hours was given by the mouth. On the sixth day 30 gr. of bi-muriate was given by needle. Throughout the attack large doses of Fowler's solution were given. On September 14, the patient was discharged as cured.

THE ALGID FORM—This variety is said to be particularly apt to attack those who are already suffering from some intestinal derangement. It sets in as a rule after a number of ordinary malarial paroxysms have occurred, and its symptoms begin not during the cold stage, but during the febrile period. There develops a condition of profound collapse, with rapid compressible or almost imperceptible pulse. The heart sounds are extremely feeble, the eyes are sunken, the pupils dilated, the countenance drawn. The surface of the body is cold and covered with clammy sweat, but the mind remains clear. Prostration is extreme and the patient complains of internal heat. The rectal temperature is elevated. Death may occur in a few hours, the symptoms resembling cholera. Of this form I have the histories of two cases.

Case 7.—*Pernicious Malaria. (Algid Type). Cured.*

Robert Desaul, white, 36 years old, was admitted September 4, 1902, in a condition of collapse. A history was obtained of daily chills and fever for a week, for which he had taken no treatment. When first seen his skin was cold and sweating profuse. Temperature 97° F., pulse very weak, tongue heavily coated, spleen enlarged and easily palpated. His mind was clear, but the voice was very weak and husky. There were seven watery evacuations, persistent vomiting and almost complete suppression of urine. There was intense prostration for two days. Urine and blood examinations were negative.

TREATMENT—Quinin bi-muriate 40 gr. daily by needle. Fowler's solution 15 minims three times a day. Hot saline and nutritive enemata. Hypodermic stimulation. Discharged cured September 11.

Case 8.—*Pernicious Malaria (Algid Type)*. Cured.

J. R. Byrd, white male, 34 years old, was admitted September 10, 1902. A history of malarial infection was obtained, the patient having had chills and fever for three days before admission. When first seen, he was in a condition of collapse, with cold, clammy surface, subnormal temperature, rapid febrile pulse, heavily coated tongue, persistent vomiting and purging, slight jaundice, pronounced anemia, tender abdomen and greatly enlarged spleen.

TREATMENT—Strychnin and digitalis by needle, bi-muriate of quinin and urea, gr. 10 by needle every four hours, for three days, and afterwards three times a day. After the vomiting ceased, Fowler's solution 15 minims three times a day. Discharged cured September 19, 1902.

The *syncopal* and *sudoriferous* forms are subdivisions of the algid variety. The first is characterized by repeated attacks of syncope from the slightest exertion, with rapid compressible pulse. The second presents copious and excessive sweating, either at the beginning of the fever or at the end of the paroxysm. With the sweating the patient passes into a condition of collapse, which terminates fatally, unless relieved by treatment.

CARDIAC and GASTRALGIC forms and not so frequent. In this there is severe epigastric pain, usually during the febrile stage. Collapse and other symptoms, similar to the algid form, supervene.

The CHOLERIFORM type is said to be very frequent in tropical and semi-tropical countries. The symptoms are such as we should expect from the name. Cramps in the belly and the extremities, vomiting, purging, fever, thready pulse, cold surface, cyanosed lips and extremities, extreme prostration. This is again but a division of the algid form.

HEMORRHAGIC MALARIAL FEVER.

The hemorrhagic tendency is generally most prominently shown in the urine, furnishing the malarial hematuria so dreaded in our swampy districts.

The paroxysms begin with a prolonged chill and rigors, and a rapidly rising temperature. In the second stage blood and blood pigment appear in the urine, which contains albumen, casts and often bile. The quantity of urine is much diminished and there may be suppression. A condition of purpura may develop and there may be hemorrhages from the nose, mouth, stomach, intestines or vagina. The patient is very ill and is anxious and restless. Jaundice is often marked. Uremia occurs where the urine is suppressed. Persistent emesis, violent headache, delirium, coma, with Cheyne-Stoke respiration and failing heart action, may be the prelude to a fatal termination. Of course all these symptoms may not occur together in every case. We may see hematuria without hematemesis, and we may have hematemesis without hematuria, as evidenced by the following cases:

Case No. 9.—*Pernicious Malaria (Hemorrhagic Form). Cured.*

Annie Janetta, white female, four and one-half years old, was admitted at 10:30 A. M., September 19, 1902, in a case of extreme depression. Pulse almost imperceptible. Temperature 100°. Surface jaundiced. She had had persistent high fever for five days. There was a chill on the second day and one later. She had been delirious. Jaundice developed on the third day of her illness. The father stated that on the morning of the 19th, before she was brought to the Hospital, she had twice vomited blood, the hemorrhage the last time being copious and containing large clots. She was exceedingly restless and excitable, was delirious, making frequent efforts to get out of bed, so that she had to be forcibly restrained. In this condition it was impossible to make any satisfactory examination of the heart or lungs. Morphine 1-16 of a grain was given by needle at 12 and 2, and 1-24 of a grain at 4 P. M., 15 grains of bromide of potash were given at 6:10 and 12:30 P. M. These had a very satisfactory effect upon her excitement. In addition to these sedatives strychnin 1-30 of a grain and digitalis 2 drops were given by the needle every four hours. Hot saline enemata and brandy by the mouth. Hypodermic injections of bi-muriate of quinin and urea, 2½ gr. each, were given at 8:10 and 12 P. M., and 9, 11 and 1 A. M., from September 19, until the morning of September 23, when it was discontinued and the bi-sulphate of quinin in 2 gr. doses was given every three hours and continued until the patient was discharged.

In half an hour after the first saline enema was given the child passed about five ounces of very dark blood from the bowels, accompanied by an excessively fetid stool and half an hour later vomited a large quantity of fluid containing a large blood clot and small dark particles. During the next 24 hours there were 11 other stools containing blood, some four to five ounces, others small, but all very dark and offensive. On September 19 the blood was examined and found free from plasmodium. On September 20 it was reported free from plasmodium, but pigment was found.

There was no urine passed until six hours after admission. This specimen was examined and found free from albumen and from bile. On the following day, September 20, the urine contained bile, mucous, hyaline and finely granular casts. On September 22 only mucous casts were present and no albumen or bile.

On September 19, at 12 o'clock midday, the temperature was 101.8°. At 4 P. M., temperature 104°. At 8 P. M. 104.4°. At 11:45 P. M., temperature 102° and the child still delirious and extremely restless and excitable. September 20, 4 P. M. temperature 100.4°; 8:20 A. M., 101°; 11:45 A. M., 101.6°. At 10 P. M., on September 23, the temperature was normal and after this time never went higher than 100°.

On September 29, the child was discharged cured, with instruction to take a tonic containing Fowler's solution and the citrate of iron and quinin.

Case 10.—*Malarial Hematuria. Cured.*

John Palmasano, white male, was admitted on September 17, 1901, with a history of hematuria and of fever for several days before admission. He was very anemic and his spleen greatly enlarged. On September 18, his urine contained 18 per cent. of albumen and a heavy deposit of blood. The blood was examined and reported free from plasmodium. Twenty grains of gallic acid in a tablespoonful of peppermint water, were given every three hours. Strychnin sulphate 1-30 of a grain and digitalis 5 minims, were ordered every six hours. On September 20, the urine contained 1¾% of albumen and a very much diminished quantity of blood. The temperature at 5 P. M., on the 18th was 101.5°, on the 19th, it was 101.5° in the morning and 103° in the evening. On the 20th, the morning and evening temperatures were 101.8° and 102.6°. On the 21st they were 101½° and 101°. From

the 21st to the 27th the temperature ranged from 101°, its highest mark, and normal. On September 27 it rose rapidly to 105°. Ten grains of quinin were given at 6, 8 and 10 this evening and repeated the following day, when the temperature returned to normal and gave no further trouble. During this time the blood was examined on the 23d, and again upon the 27th, a negative report upon malaria being made in each instance. The urine was examined daily, the albumen and blood diminishing progressively in quantity until upon the 26th nothing noteworthy was found. The patient was discharged on September 29, apparently cured and with his splenic enlargement and anemia much diminished.

In spite of the failure to find plasmodium in the blood, it is evident that this was a case of malarial hematuria. I cannot recall our reason for not administering quinin in the beginning, but it was probably due to the fact that the general symptoms were not of an acute character.

In these ten cases of pernicious malarial fever there were six examples of the comatose form, two of the hemorrhagic and two of the algid form. Three of the comatose cases recovered and three died. All three of the fatal cases being complicated, one by acute nephritis, one by chronic diffuse nephritis and one by lobar pneumonia. Both the cases of the algid form, and both of the hemorrhagic cases recovered.

In these ten cases there was unfortunately no blood report in three of them. In five of the cases the blood was examined and no plasmodium was found, but in two of these, which recovered, free pigment was reported in the blood and in one, which died, the estivoautumnal (crescentic) organisms were found in the blood taken from the spleen at autopsy. In one case, which recovered, the blood showed a double infection by tertian and crescentic parasites.

It is evident then that the diagnosis must often be made in spite of a negative blood report, even where facilities for this examination are at hand, and must be based upon a history of possible infection, upon the enlarged spleen and the knowledge that malaria may present these severe and unusual types. It is evident that frequently the estivoautumnal crescents may be absent from the peripheral circulation and may yet be present in the spleen.

The treatment of these pernicious forms of malaria is to rapidly cinchonize the patient and this can be effected with certainty by the hypodermic administration of one of the soluble salts of quinin. The preparation used in all of these cases was the bismuriate of quinin and urea, but the hydrochlorate, the hydrobromate or the tannate of quinin may be used instead. After the pernicious symptoms have been controlled arsenic and citrate of iron and quinin are to be given in full doses to combat the anemia which is always marked after these attacks. In addition to this specific medication other remedies will be required to meet individual symptoms, as the bromides and opium for restlessness, delirium and vomiting, saline enemas for suppression of the urine, and strychnin and digitalis for depression and collapse.

I have not spoken of the so-called bilious remittent fever, which is indeed often a prelude to the genuine hemorrhagic form. It is characterized by high temperature, severe jaundice, vomiting of bile, disturbance of the renal functions, and unless arrested by proper treatment, soon exhibits the symptoms of the hemorrhagic form. This is the type of fever so often mistaken for yellow fever and has been discussed at length before this Society.

DISCUSSION.

DR. DUPAQUIER wished to take exception to that part of Dr. Fenner's paper in which it was advised to cinchonize all cases of pernicious malaria; he thought the hemoglobinuric variety should be excepted. From a large number of the physicians of the parishes who attended the Polyclinic he had made inquiry as to their method of treating the hemoglobinuric type of malaria and from them had received practically a unanimous condemnation of the use of quinin in these cases. It was his opinion that the heroic doses given in this condition frequently induced the kidney symptoms. The best treatment was to wait until the acute hemorrhagic symptoms subsided, treating systematically during this time, then thoroughly cinchonize the patient. Some awaited 24 hours after the disappearance of the hemoglobinuria before resorting to quinin. Koch had made observations along these lines and certainly had been in touch with the most malignant types of cases and he vigorously condemned the use of quinin in the hemorrhagic condition. He thought Dr. Fenner's advice was a question that should be freely

discussed. Two years ago he had treated a case of malarial hemoglobinuria that gave a history of suffering from simple intermittent malarial paroxysms and came to his office on the seventh day, when he had a very profuse passage of black water. The case was taken home from the office and the doctor intended to follow shortly in order to inject hypodermatically heroic doses of quinin. At the same time he was called to an emergency case of labor and was unable to see the patient until the next morning, whom he found sound asleep and apparently free from danger. This case made a happy recovery, but the doctor believed that had he been able to carry out his original intention of giving the quinin, his patient would never had recovered.

DR. LEBEUF had had contrary experience to that of Dr. Dupquier's. He had practiced for nine years in the parishes, during which time he had treated a large number of cases of pernicious malaria. Drs. Bemiss and Jones taught at the time not to give quinin, but to employ turpentine stupes with supportive treatment. He followed their advice in a large proportion of cases and he lost fully 50 per cent. When he came to this city to practice, he noticed from the literature that there was a tendency to the re-employment of quinin in the hemoglobinuric type, so he gave hypodermic injections of bi-sulphate in large doses, having a far more favorable result than he did without its employment. The last case of malarial hemoglobinuria that he treated was that of an insurance man who was tall and emaciated, a native of Boston, and who had three attacks prior to the present, and by the free administration of quinin hypodermically, the case had terminated favorably.

DR. GESSNER said that Dr. Fenner's experience with malarial fever would bear out the position taken by Celli that a man may die of malaria and not show plasmodia in repeated blood examinations. In his ward it was a standing rule not to give quinin until the plasmodia had been found, but in some cases, when repeated examinations failed to detect the plasmodia, students had administered quinin and had frequently cured cases of the fever. The plasmodia could not in all cases be found in the peripheral circulation and in order to demonstrate them specimens would have to be taken from the deeper structures, such as the spleen. After all, he believed that much depended upon the clinical symptoms and

too much reliance must not be placed on the negative results in blood examinations. The laboratory examination was a help, but was not conclusive. Regarding hemoglobinuria he thought that if the hemorrhage is due to an active infection by plasmodia, quinin should be administered in these cases. In a recent number of the *Tulane Phagocyte*, Dr. S. K. Simon had reported several cases of hemoglobinuria in which quinin had been actively given, after plasmodia had been demonstrated, and did much good. He had recently read a very interesting article in the *Therapeutic Gazette* in which it was advised not to give quinin late in hemoglobinuric cases, but to give it early, so as to prevent the hemoglobinuria.

DR. THEARD—The subject under discussion brought back to his memory a case treated in 1892 or 1893, which was very interesting, because of the hyperpyrexia. The case was being treated by Dr. Fourgette, two chills had occurred and he was called in after the third chill, when the temperature was 103° . The bi-sulphate was given hypodermically without effect and the temperature rose before death to 110° , and even higher after death.

DR. SEXTON was surprised to hear of so many cases of malarial hemoglobinuria being reported as occurring in the city by the members, for in 13 years' practice he did not recall a single one of his cases as coming from the city, all being reported from the ultra-malarial district in the parishes. The physicians in the Yazoo delta were much opposed to the administration of quinin during the active hemorrhagic state. He had recently treated three cases of malarial hematuria. One was a case from Ruddock, which when seen by Dr. Sexton, was in a moribund condition. This case was thoroughly cinchonized before seen by Dr. Sexton. The case died. The second case was that of a pregnant woman who aborted from the malarial toxemia. Quinin was given in this case hypodermically and the patient recovered. The third case was that of a young boy having a mild type of malarial hemoglobinuria. Bi-sulphate was administered hypodermically and the case recovered. The keynote of the entire situation was to inaugurate vigorous treatment before the condition reached the hemorrhagic stage. It was most important to treat by the liberal use of quinin on the seventh, fourteenth and twenty-first day. Quinin, when administered in large doses by the stomach in the severe forms of malaria is rarely absorbed by the organ, since it is in no con-

dition to perform its usual function. Turpentine as a hemostatic had given good results in his hands. He thought that the pendulum of condemnation had swung too far in the use of quinin in hemoglobinuric cases. In the treatment of all malarial conditions the danger of their becoming pernicious should be remembered by all and treated vigorously at the onset. The hot mustard foot-bath and the employment of a blanket wrung out in hot water were valuable in promoting free action of the skin and relief of the kidneys. Water should be given in great abundance, thereby diluting the toxins and favoring elimination.

DR. LAZARD said that each year for five years a paper had been read before the State Society on malarial hematuria. No question had been more stubbornly fought than the pro and con of giving quinin. The older men of the country parishes regard quinin as a poison and the younger are inclined to give it a trial. During the Confederate Reunion he asked one of the old physicians did he give quinin in malarial hematuria, when he was told by ten or fifteen of the members present that it would certainly kill the patient if given. He read from the Transactions of the Louisiana State Medical Society that Dr. Tarleton said that if he had a case of malarial hematuria in which he had given quinin, and the patient had died, he would feel that he had been directly responsible for the death by having given quinin. He had never treated a case of malarial hematuria and was anxious to know what would be the proper treatment to institute in such cases.

DR. ELLIOTT, JR., told of his father, Dr. J. B. Elliott, Sr., having sent several communications to physicians in the malarial belt, receiving replies from 60. Of this number over 60 per cent. said positively "Do not give quinin." Recently a physician from Avoyelles parish, had told him that quinin was the worst possible thing to give in malarial hemoglobinuria, and he would under no circumstances administer it. When blood was once seen in the kidneys it was looked upon by them that the harm had already been done, and by using quinin was simply to intensify the condition.

DR. MILLER related a case that he had treated who came from the Mississippi bottoms. On the second day the patient had 101° temperature and three hours after taking the second dose of quinin bloody urine developed. He was then told by the patient that he

had previously had bloody urine caused by taking quinin. This same case went to the Park two weeks later and upon return, thinking he had taken cold, took a capsule of quinin and shortly afterwards blood was evident in the urine, showing the specific influence of the drug in this case.

DR. JACOBY—At the meeting of the A. M. A. in May, a paper had been read in which it was claimed that the blood should be examined every five hours and if plasmodia was found quinin should be given. In the case that he had treated in the Hospital no quinin was given until the patient became delirious, when quinin was administered hypodermically, but the patient died the next day. No quinin was administered previously, because the report from the bacteriologist was desired. The report was negative, however. The crescentic plasmodia was found in the blood taken from the spleen after death.

DR. DUPAQUIER—The objection to heroic doses of quinin in hemoglobinuria is not for fear of choking the kidneys; it is because the heroic doses have a destructive action on the blood corpuscles. Thus, their toxic influence is superadded to that of the malarial poison. (Manson.)

DR. FENNER, in closing the discussion, wished to state that regarding what had been said about rapidly cinchonizing these cases, that he had purposely tied a string to his assertion with the special intention of withdrawing it, in its employment in the hemoglobinuric type. Personally he did not or had not had much experience in the treatment of hemoglobinuric cases, but all know that the physicians from the parishes regarded quinin as a deadly drug in these cases. His paper was intended to record cases in which there was no hemoglobinuria. In one of his cases he did not give quinin until the urine was free from blood, so he was unprepared to say what would have been the effect had the quinin been given in the beginning. He was convinced that rapid and vigorous cinchonization was imperative in all other forms of pernicious malaria. In 50 per cent. of the cases no plasmodia had been found in the peripheral circulation. In two or three fatal cases the plasmodia had been found in the organs after death. It was not his intention to throw any discredit upon the laboratory, for certainly in the algid comatose type it was most difficult to diagnose and the microscope frequently rendered great assistance.

Although blood examinations need not be absolutely relied upon, they were unquestionably of great value and assistance in these cases of pernicious malaria.

DR. C. M. BRADY read a paper on

The Negro as a Patient.

The subject which I have chosen for my paper this evening, while not of a strictly medical nature, is one that appeals to me most strongly, because I so thoroughly realize the irresponsible and improvident characteristics of the negro race. I hope to make it of interest to you also. I beg you to bear with me while I set forth some of my experiences as a physician among them and venture to offer in a tentative way, a somewhat visionary and chimerical plan for their future betterment. This plan, or one with a like object, offers in my opinion the best hope for their ultimate happiness.

I discuss the negro as I believe the correct solution of the negro problem is the one and vital question before the white people of the South at this very moment. The negro will be with us always, as a necessary part of our life and existence; and it is both duty and policy for us to safeguard his general welfare as our own.

Every evil that comes upon him, avoidable or otherwise, necessarily reacts upon us. Our ties and associations and interdependence are such that, strive as we may, there is no severing the bands that bind us as one to the weal or woe of our common country.

My records for the years 1899-1902, which I select as including the time in which my negro practice was largest and most representative, showed a percentage of three-fourths white, though the district in which I practiced is about equally divided between the races. I believe I treated as large a proportion of negroes as any of my confreres.

The death-rate of the negro in my practice has been excessive, as the following mortality table will show. This excludes death by accidents, in which the whites slightly exceed, as the dangerously injured negroes are more often sent to the Charity Hospital and thus did not frequently come under my care.

I am unable to make an accurate comparison of all my cases of disease because I kept no record of recoveries, though I am confi-

dent my estimates would be borne out by complete statistics, if available. I here make a brief comparison of the death-rate of the two races with the average age of death. I again call your attention to the fact that it is in selected years of my own practice.

	WHITES.			COLORED.		
	No. of deaths	Average age	Estimated per cent of total cases treated	No. of deaths	Average age	Estimated per cent of total cases treated
Acute Pulmonary Affections	7 { 4 infants, 1 senile, 72			15 { No infants, 1 senile, 65		
Pulmonary Tuberculosis	6 { 2 45, 1 senile, 72	45	14%	14 { 35	35	50%
Endocarditis	6 { 5 29, 1 senile, 75	29	75%	14 { 26	26	96%
Apoplexy	4 { 5 45, 2 senile, 75	45	80%	10 { 2 senile, 75, 86	48	
Chronic renal disease	2 { 2 42	42		6 { 1 senile, 86	53	
Malignant neoplasms	2 { 2 42	42		3 { 52	52	
Malarial fevers	2 { 40½	40½		3 { 1 senile, 80	53	
Yellow fever	1 { 40	40	16%	3 { 2 32	32	
Smallpox	0			2 { 1 infant, 1 60	60	2%
Scarlet fever	1 { 5	5	2%	0		
Diphtheria	0			1 { 5	5	25%
Typhoid fever	1 { 19	19	5%	2 { 5	5	25%
Gastro-enteritis of infants	10	18 mo.		13	1	
Enteritis of adults	1 { 45	45		7 { 1 senile, 80	48	
Tetanus	3	Neonatorum.		6 { Neonatorum.		
Cerebro-spinal affections	2 { 1 infant 22, 1 36	22		4		
Abscess of liver	1 { 36	36		1 (infant)		
Senility	0			0		
Senile total	5	74		7 simply	78½	
	With other diseases	49		13	79	
				91		

Children under the age of five:

White.

19

Colored.

19

I am astonished to find the death-rate among the white children as 40% of the total, while among negroes it is not more than 21%.

It is absolutely contrary to my belief and experience and I can only account for it by ascribing the circumstance to a peculiarity of the years under discussion.

Longevity—I find five cases of senility among the whites, with an average age of 74 years at death and 13 among the colored, averaging 79 years. This gives 8% senility among the whites as compared to 14% among the negroes. I am correct as to the respective number of cases, but I very much doubt the excess of average age among the colored over that of the whites. They are very hazy on that point and are prone to exaggerate age beyond 60 years.

In pulmonary tuberculosis the average age of the death of the negroes was 26 years, of the whites 29; acute pulmonary diseases of but one negro who has survived tuberculosis one full year after he came under my observation.

It may be asserted that my mortality among colored people was excessive and unreasonable, but it is borne out by my accurately kept mortality statistics and is correct as far as my experience in a country and village community is concerned. As a check upon my own figures I have looked up the relative mortality of the two races in New Orleans for two periods of five years each.

(See report of Health Officer of the city of New Orleans to the Committee of Arrangements of the A. M. A. at its recent meeting.)

In 1885-1889 mean death rate, white.....	23.06
In 1898-1902, mean death rate, white.....	20.13

A decrease of nearly 3 per thousand.	2.93
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The colored is as follows:

1885-1889.....	33.30
1898-1902.....	31.86

1.44

A decrease of 1.44 per thousand as compared with 2.93 for the whites, a little less than $\frac{1}{2}$ the white decrease.

Actually there was a 12% decrease in the white mortality as compared with a 4% decrease in the colored during the year under comparison.

The average death rate in New Orleans from 1880 to 1902 (see above report) was: Whites, 23.23; negroes, 36.88—a little more than half as large again for the negroes as for the whites.

Thus we see that the white death rate in New Orleans, where the negro could have the best opportunity for advancement and health, has decreased three times as rapidly as the latter. This does not look very promising for the future in New Orleans.

What are we to expect in the small towns and in the rural parishes where they are even at a greater disadvantage?

I believe it to be self-evident that the individual negro is born into the world endowed with at least as much inherent vitality as the individual white. Else why do we see him performing manual labor of a kind and under conditions which few white men seem able to endure? Compare the white woman with the negro and decide which has the more inherent vitality and which ought to have the best chance in the struggle for existence. We see this race, so lavishly endowed by Nature, so shorten and deteriorate their lives through some vice of their living as to decrease their capacity to labor and to create wealth in proportion to the difference between the death rate of the two races, *i. e.*, about 50%.

I shall try to state for your information some of the faults and misfortunes by which this unfortunate and disheartening condition is brought about.

The average negro does not call for medical aid till he thinks himself seriously ill. He infinitely prefers the risk of contracting smallpox when prevailing as an epidemic than the certainty of a painful vaccination. He dislikes as a rule the doctor's medicine, fearing it is too strong for him, preferring tisanes, roots, teas and herbs. He is an ideal fatalist. From this trait of character I saw professionally as many, if not more, serious cases among the colored than among my more numerous white patients.

The routine method of obtaining aid among them is as follows: If the patient belongs to a sick benefit society, as fortunately for

them they usually do, he first sends for the sick committee, who visits him and is the absolute judge as to whether or not the sick man really needs a physician. If the committee man is working at his vocation, he calls on the patient that night or the next day, so that one or two days have frequently elapsed before the doctor sees his prospective client.

Should not the sick man be an officer or an influential member of the society, meaning by that usually a relative of the officers, or should he be "unfinancial," to use their technical expression, that is, behind in his dues, the committee may decide against him and he is left to recover the best he can. He may grow so much worse that a call from the doctor is deemed advisable to save a coroner's inquest. This is considered by them decidedly bad form and causes a certain loss of social prestige. The doctor is not usually allowed to repeat his visit except at the discretion of the sick committee unless he insists that it is very necessary and then he may pay as a rule not more than four or five visits in twelve to fifteen days' treatment of the most dangerous and treacherous diseases.

If your patient is not cured of ascites, tuberculosis, chronic endocarditis, acute rheumatism or the like in a fortnight it is understood that your medicines cannot reach his sickness and another doctor is employed or more likely he is deemed to be "hunted" or "hoodooed" and some "hoodoo" doctor is called in to remove the spell or "trick" which has been put upon him.

I called unexpectedly upon a negro who was dying of tuberculosis and found the carcass of an unplucked chicken lying split open upon the poor man's naked breast. I was told after some close questioning that it had been applied while still living and was expected to draw out the disease. This was the advice given them by a great "foreign" hoodoo doctor imported from Donaldsonville, who received a fat cash fee. These people were supposed to be unable even to buy medicine, which had to be given them by their employer, while my visits were free.

Frequently when the physician is getting the family history of a negro, he will state the cause of death of some member of his family as poisoned or "hurtled," meaning voodooed.

When a doctor prescribes for a negro he must get action of some

kind with the first dose. The sick man must feel some effect, otherwise the doctor may be astounded and chagrined when he returns after several days to find his patient no better, his medicines almost untouched and be met with the surly explanation that it did him no good or made him worse with each dose.

It is difficult to get a negro to understand your directions and still more difficult to get them obeyed. Have any of you carefully given your directions to an average negro and then asked him to repeat them to you? He has not heard what you said, not to speak of being able to repeat your directions. They have an especial aversion to the use of cold water locally and I have never succeeded in getting one to use cold water freely in fever. They will make a bold pretense until the doctor leaves the house. I do not recollect ever entering a house and finding one sponging the patient.

When one of them does not belong to a sick benefit society, or cannot get a white person to be responsible for his debt, the doctor knows in advance that his visit is most likely for charity. I estimate a collection from them of not more than 5% where I had no means of forcing payment and even that meagre proportion came from amounts of less than \$5. A larger bill seems to stagger them by its immensity and they do not make the slightest attempt to settle it. On a call where it is understood that the fee is to be paid at the time of the visit, the negro will not offer the money when the doctor leaves unless asked for it, hoping the doctor may forget it. A favorite trick is to get the doctor into the case by paying for the first visit.

The strongest appeal to the pride of race, to the pride of the individual, by intimating that he is the one honest and reliable man, has been without avail. I have flattered, I have threatened and I have coaxed them, but all to no purpose. They will not pay a doctor's bill if they can avoid it.

The average negro family has, I am convinced, a 50% larger income than the average white laborer and family. The women nearly all earn incomes as cooks, washerwomen, servants, peddlers, or semi-clandestine prostitutes. Children attend school very little and are sent out to work at a very much earlier age than white children of the same parental income. Those who are working as

servants carry home food and small articles of value either as gifts or peculations and there is little need of buying food for themselves. They are plausible and incorrigible beggars. When housekeeping the women often cook no more than one meal, supper, when the men are at work, their dinner consisting of boiled ham, bread and beer from a neighboring grocery and with their children they are thus insufficiently nourished and in consequence less able to survive disease. It is comparatively common for single negro women to die when from 16 to 20 years of age of obscure diseases, which I suspect are connected with the genital functions. The young negro women are usually immoral and in country communities the cause of constant drain on the income of the young male whites and thereby increase to a surprising extent the total income of the average colored family as compared with the white family of the same station in life.

With all the advantages of income we find the negro dwelling in the outskirts of the community, where the drainage is bad and surroundings unhealthy. The house is a cheap rented cabin in poor repair, or when owned by him individually it is frequently a squalid hut, or if a neat cottage usually heavily mortgaged to some white person. A negro will live in a house under surroundings that few white persons will willingly endure, subject to all the vicissitudes of the weather.

In many houses, in winter the wind whips through the floor, the walls and the broken windows, while fire is almost lacking. There is nothing more plentiful than wood in Louisiana, but the negro is too improvident to procure a sufficient supply and we see him either suffering from cold, or taking up plank walks, his own fence or his neighbor's, or his neighbor's woodpile. I well know an old negro who each summer would lay aside an abundant supply of drift wood and then with his dame spend all the long winter nights alternately watching their treasure to prevent its being stolen by neighbors. As a result of living in such a house as I have tried to depict, three brothers died of pneumonia in different years under my care.

I shall now give a summary of the chief cause of the excessive mortality among the negro race in general, which mortality my experience teaches me is no higher among the small number of

negroes who live and act as white people do, than among the white people themselves:

1. Neglect of the children through laziness and ignorance, especially in feeding children on fermented milk or solid food and considering the resulting illness due to teething and therefore beneficial.
2. Unsanitary surroundings, including poorly-built dwellings and insufficient ventilation.
3. Insufficient and poorly cooked food.
4. Insufficient clothing and covering and fire in winter.
5. Loss of rest. The average young negro does not obtain more than two-thirds the necessary amount of sleep.
6. Venereal excesses and untreated venereal diseases, especially syphilis.
7. Neglect in childbirth.
8. Drug and alcohol habits! cocaine in wine is drunk to great excess among many of the young negroes of both sexes.
9. Failure to secure prompt medical attention. Failure to carry out medical directions as given.

As a class, with some praiseworthy exceptions, who are entitled to all the more credit because of their associations, I find the negro as a patient immoral, untrustworthy, irresponsible and improvident, and I feel that as long as the average negro man will not pay a just debt, when he can avoid it and therefore can never secure credit when he most needs it, and the average woman is immoral now or has been in the past, there is a dark future before them. They will continue to be hewers of wood and drawers of water.

I see in the future absolutely no hope for any material progress so long as they are left to their own resources and I suggest that we, the dominant race, adopt some system of guardianship for their own protection, until education, moral suasion and correct example, have taught the men to be approximately as reliable and the women nearly as moral as those of the white race.

There can be no hope, no future, nothing but black despair for a race of people professedly Christian, a frequent object of whose men is the seduction of the only too willing wives of their neighbors, and whose young girls from 12 to 16 are in great part living

in a state of free love with their young male acquaintances. I have known of a minister of the gospel living in a state of concubinage with one or two favorite sisters without either of the guilty parties losing caste with the congregation.

The plan which I would suggest for the betterment of the colored race may be contrary to the laws of the United States, but if it could be enforced it would tend to greatly promote the health and general welfare of the colored race and as a necessary sequence result in great benefit to the white race.

It is simply extending and amplifying the regulations of their own sick benefit societies under the authority and by means of the State government. All negroes of any degree of respectability are members of some sick benefit and burial association. There are perhaps more than 1000 of these societies in Louisiana, with a membership ranging from 25 in a small society to a total of 5000 individuals dependent on the help of the largest body.

These are as a rule managed for the most part in the interest and to the financial benefit of the officers, one set remaining in authority for almost a generation. They are rarely defeated and when close pressed by a sharp opposition resort to the most up-to-date method of filibustering, ballot box stuffing and postponing an election till the opposition is exhausted. Even murder has been charged lately by a defeated faction as an effectual means of closing a noisy mouth. As a result of such management illegal and unnecessary disbursements absorb from 50% to 75% of the receipts. I have known the president of a society to spend 30 or 40 quarter dollars for new clothes for his paramour the next day after the meeting at which the monthly dues of 25 cents were paid.

The officers will at times embezzle the moneys ordered paid for sick relief or to the undertaker, or doctor, and the poor doctor is wondering why he is not paid while he listens to the most ingenious and plausible excuses from the man who has perhaps already spent his money. The treasury is looted outright of the sum of one hundred or more dollars whenever that amount is accumulated. I have never known of its being replaced or the embezzler prosecuted. He is far more apt to be re-elected to office.

To continue with my plan: It is to follow the lead of one of the largest and most influential labor organizations in the State. This

society deducts from its members before they are paid 5% of all their daily wages, amounting to 20 cents daily for each individual, and is supposed to apply it only to the relief of members in distress and needy.

I suggest the creation by the Legislature of a State Board for the protection and advancement of the colored race, that police powers be given them to enforce all their rules and regulations equally throughout the State.

1. First, that from all negroes that work as laborers, farmers, clerks, mechanics, etc.; from all those who earn wages in any legitimate manner whose gross income from whatever source amounts individually to less than \$900 a year, there be deducted 5% of their income.

2. That one salaried man be appointed in each parish to collect and disburse this fund and to have supervision over all matters connected with the enforcement of the law.

3. That all employers and people who pay negroes for produce or articles created by them, deduct from their receipts the legal tax, according to this law and that violations upon the part of either employer or employee be punished with a suitable penalty.

4. (a). With the funds thus collected I suggest that there be employed in each parish such a number of suitable and competent physicians at a satisfactory compensation, that there should be no lack of capable and regular medical attention, all drugs and such necessities to be furnished free of cost to the patient.

(b). Intelligent negro women of good moral character must be educated in nursing and sent from house to house at the expense of the board to nurse all serious cases of illness. These women when not engaged in actual nursing must visit homes where there are young children and infants and teach the mother the proper methods of rearing them. They must perform all the usual duties of midwives in normal labor and be instructed to call in the physician in all cases of labor that seems to be prolonged beyond the usual time.

(c). In cases of disability from accident, or disease, half wages be paid indefinitely until recovery, on the certificate of the physician.

(d). A pension for old age be allowed to the heads of families when they are no longer able to earn a living.

(e.) A suitable contract made with a strong industrial insurance company to insure every individual practically without examination. The parish administrator to pay the dues monthly, or quarterly, by check to the home office, thus saving for the insurance company the heavy expense of writing and examining new business and the still heavier expense of the house-to-house collection of the dues for the old business. In this way a far more favorable rate of insurance can be granted by the company, with larger death benefits.

(f). That the negroes be encouraged by the State Board to establish banks, factories, mills and the like, and to furnish the labor themselves.

By such a plan, if practical, the negro has the best chance to advance out of the degraded position which he now holds and to join hands with the white race in an earnest effort for the material and moral uplifting of our common country.

DISCUSSION.

DR. LEBEUF congratulated Dr. Brady upon his excellent article, but he feared that his suggested plan was Utopian, since the freedom granted by Constitutional right would not permit the withholding of fees against the will of those concerned. Prior to the freedom of the negro the doctor's grandfather had owned a large number of slaves, upon whom he kept some valuable statistics, which went to show that the health in the negro prior to his freedom was far better than the condition that existed to-day. The measurements and general physical endurance of the negro of that time, was much better than it is now. The mate of the steamboat "Natchez" told him lately that the average life of the roustabout on the levee and on the "gang plank" was only three years, when formerly it was between eight and ten years. He attributes the cause of this to their strenuous life, while their food was so irregular and their habits so dissipated. The very irregular life that was led by the modern negro and the fact that the great majority had syphilis, or had had syphilis, or would have syphilis, went towards establishing a very poor resistance to disease. In thinking of the

negro as a patient, it was in a measure possible to classify him into the country negro, the city negro and the mulatto, the two latter having decided less resistance than the former. The subject as a most interesting one, the solution of which was extremely serious and would be one of the most complex problems which future generations would have to solve.

DR. GUTHRIE—If we consider how greatly the birth rate among the negroes exceeds the birth rate of the whites, it may be a subject for congratulation that the negro, through his own sins of hygiene brings about a reduction in his own numbers and that this occurs so often before or in the beginning of the reproductive period. If the negro were protected from results of these errors the race would in a short time greatly outnumber the whites. However, this disastrous state of affairs can not come about so long as he continues to live in the almost hopeless condition which Dr. Brady has pointed out.

It is a matter for serious consideration whether we should not allow nature's laws to take their course, which tends to the extinction of the negro race.

Dr. Brady's suggestion of the State's assuming a parental control over the negro is, to say the least, Utopian and would certainly be class legislation of the most extreme sort.

DR. JACOBY had spent a few weeks in Patterson, La., the population of which was 3,000, one-third or more of which were negroes. During his practice in this town he had the opportunity to closely observe the negro as a patient. In this small town there were at least seventeen societies. There was always a tendency among the negroes to form new societies. He related an advanced case of tuberculosis in which green peach leaves had been applied locally to reduce the fever. The negro does not follow instructions given by the medical attendant and he found the Italian a much better patient and one that would pay his bills.

DR. W. F. PETTIT had had a bit of experience in the treatment of the negro. Regarded it a misfortune that they should so often be the prey of the younger practitioner, fresh from college and inexperienced. He had found as many classes among them as among the whites. Negroes have great respect for the attending physician and if they think him a bit better than others, always show their

appreciation by meeting their obligations as soon as circumstances allow. If they think he is not any better than another, they forget him and call another next time. He found the negro very prone to lung diseases, especially tuberculosis, which always takes a rapid course. He thought the modern house partly responsible for the mortality. They pay no regard to ventilation and overcrowding; unlike before the Civil War, when they lived in log houses, the mud between the logs dried and oftentimes fell out, leaving crevices for the ingress and egress of fresh air. During slavery they kept good hours and always had a sufficiency of good food and were well-clothed. Now, being their own masters, they most often disregard this. They are very irregular in their habits, are poorly clad and spend night after night at frolics and attempt work next day, with little or no rest. All are prone to sexual excesses and venereal diseases are common among all ages. Smallpox has almost a selective affinity for the race, as they do not appreciate the value of vaccination. He has never seen one with either the confluent or black variety recover.

DR. MARTIN—In regarding the negro as a patient it was necessary to study the pathological conditions. Of those who came to the Hospital, two-thirds were syphilitic and one-third tuberculous. The negro was an educated animal, not taught to think, who had been suddenly set free and laid himself liable to the many temptations of the luring world. He disagreed with Dr. Pettit as to negroes living in better condition to-day than they did during slavery, for prior to their freedom their masters, regarding them as part of their capital, naturally looked to their health and physical condition, seeing that they were well-fed and well-clothed. The negroes' quarters to-day were crowded and badly ventilated, with resulted in contagion and tuberculosis and their immoral sexual relations gave rise to a common syphilitic infection. It was his belief that the negro coming late for treatment did not do so from dread, but from ignorance of disease. Syphilis was undermining the whole race. Their mental condition made them good patients. There was no nervousness, and, as a rule, they are quiet and docile. In his Hospital experience he had noticed that a great majority of the diseases treated were in the advanced stage.

DR. STORCK said that one of the phases not touched upon was the

irregular manner in which the prescriptions were compounded given the negro by his medical attendant. He did not believe that ten per cent. of the prescriptions were properly compounded. The negro mortality was the same in Washington and Baltimore as it was in New Orleans.

DR. KEITZ—Dr. Guthrie's fear of the predominance of the race being rendered impossible by Nature's provisions need not be depended upon, for the nearer the negro approaches the white man the more prone does he become to deadly diseases. The negro lacks originality and education and has so far accomplished nothing. He is an excellent imitator, but not an originator. In his experience in treating the negro he had found that they would never tell the truth to an attending physician.

DR. DUREL did not believe the negro should be looked upon as a beast or treated as such. He had noticed that tuberculosis was especially prevalent in the mulatto. Dr. Brady's suggestion did not seem practical.

DR. GESSNER was not at all inclined to take the extreme view expressed by some of the members. The negro had a soul and was a human being; he owed his presence here to the whites and he should not be condemned unreservedly. These people were among us, the best should be gotten out of them and the white should help to improve them. He believed with Dr. Alderman that ignorance was a remedy for nothing. The industrial plan of insurance seemed to him to be the right step towards solving this serious problem. Dr. Brady's plan was Utopian under present Constitutional provisions. However, there seemed to be a tendency at the present time to abolish the fourteenth and fifteenth amendments of the Constitution. In the event of their abolition being accomplished, such a plan might be carried out.

DR. DEMPSEY—Industrial insurance was a good thing for the negro as well as the doctor and the undertaker. He considered it one of the methods of improving the negro's situation.

DR. BRADY, in closing the discussion, said that in fifty per cent. of his cases the negroes were insured in these industrial companies and he believed it was a most fortunate thing for the race. Quite a fair proportion insured have been in the companies less than a

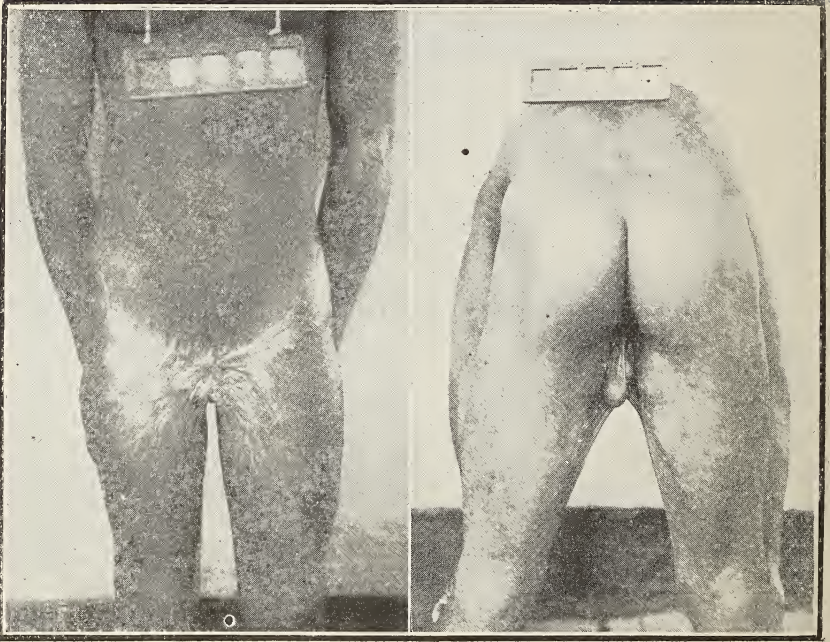


Fig. 1.

Fig. 2.

Dr. Gessner's Case.

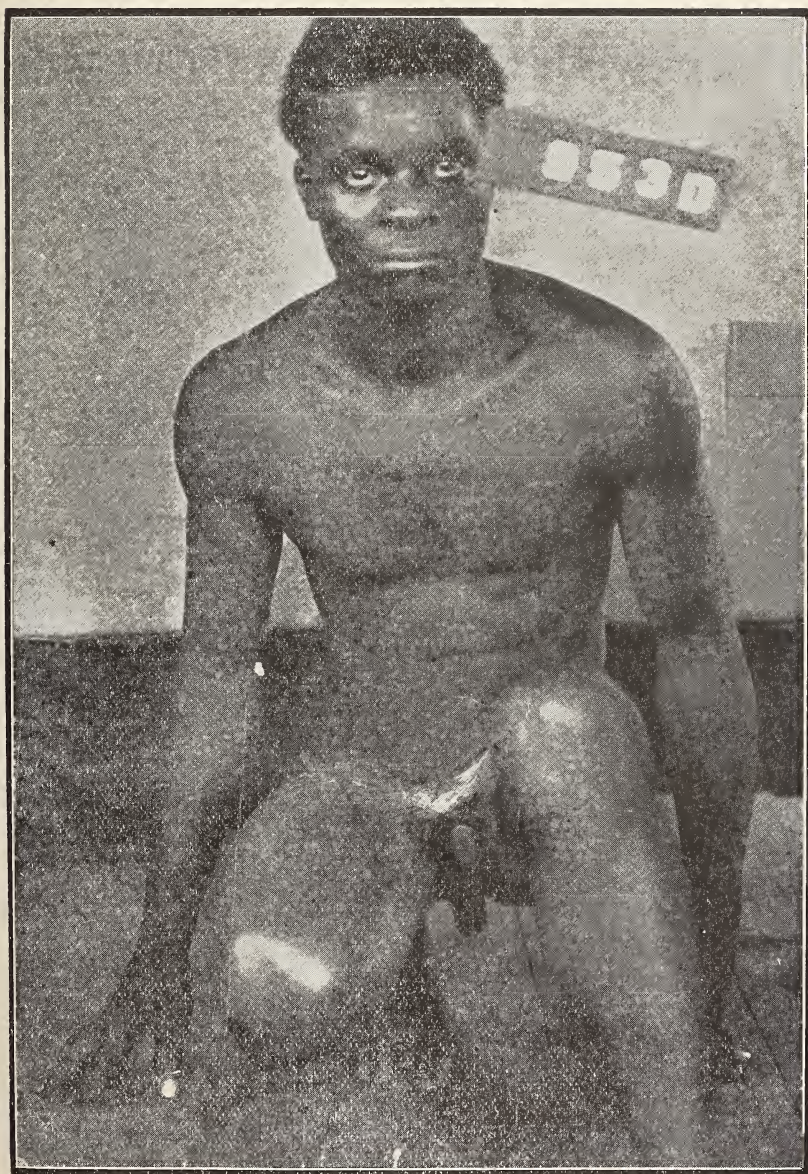


Fig. 3.—Dr. Gessner's Case.

year before death, seeming to take advantage of the slight examination to secure insurance when really they were not always eligible.

RELATION OF CASES AND MEDICAL NEWS.

DR. GESSNER presented the photograph of a negro boy of 20 years, whose external genital was almost completely hid by an apron scar tissue resulting from a burn.. Treatment had consisted of median incision of the apron, followed by the bringing up of a scrotal flap from each side to cover the totally denuded penis. A gap left between the flaps by cutting out of the stitches had been almost completely filled by Thiersch grafting when the patient deserted. A complete cure was expected in this case. (*See cuts.*)

MEETING OF NOVEMBER 14, 1903.

DR. GRANER, President, in the chair.

DR. O. CZARNOWSKI read a paper on

Hyperemesis of Pregnancy.

At a meeting of the Orleans Parish Medical Society, of July 25th, Dr. Amedée Granger read a paper on the "Electrical Treatment of the Vomiting of Pregnancy"—saying among other things:

"And in its intractable form becomes a formidable complication, often necessitating the emptying of the uterus after all treatments have failed, and not rarely causing the death of patients."

I add other statistics:

Gueniot reports 118 cases with 46 deaths; Delbes reports 62 cases with 30 deaths; Kullenbach reports 116 cases with 48 deaths.

Kohl in Kleinwachter denies the existence of any such condition.

Carl Braun in the fabulous experience of over one hundred and fifty thousand cases, has never seen a fatal case.

Reviewing a number of writers, it is curious to note the great divergence of opinion on the condition under consideration. In Pepper's System, W. W. Jaggard, writing on the "Disorders of Pregnancy," says: "Nausea, oven vomiting in the morning before or shortly after meals during the early months of gestation is so common and devoid of injurious effects that it is regarded as physiological." Robert Barnes regards it as a normal means of

discharging superfluous nervous energy. Later on he says: "The uncontrollable vomiting of pregnancy, in which the stomach retains absolutely nothing, is a grave disorder."

Gueniot calls attention to the following as necessary to confirm a diagnosis:

1st. The diagnosis of pregnancy.

2nd. The diagnosis of the adjuvant or determining cause of hyperemesis.

3rd. The differential diagnosis between uncontrollable vomiting of pregnancy, and obstinate vomiting from some other cause entirely independent of the pregnant condition, such as ulcer, carcinoma, of the stomach, disease of the heart, liver, kidneys, or intestines.

Thus Troussseau (Depaul) made the diagnosis of uncontrollable vomiting, induced abortion in a case in which the autopsy revealed cancer of the stomach and no pregnancy.

Beau (in Charpentier) made the same mistake, in a case in which the post-mortem showed tuberculous meningitis as the cause of vomiting.

Horocks describes a similar case in which extensive encephaloid cancer of the liver was found.

G. I. Engleman in *Manus Am. System of Gynecology* classifies the disorder under the "Hystero-neuroses" and says, "the most common and best known of these genito-reflex phenomena is the morning sickness of early pregnancy, and this at the same time offers a striking example of the importance of the "hystero-neuroses." To the ignorance of the reflex nature of this irritation of the stomach, resulting from uterine congestion, many a young life has been sacrificed; many a young wife, happy in the expectancy of motherhood, has fallen a victim to the violence of reflex nerve action heightened to its greatest intensity in this period of female functional activity."

Frommel—*Handbuch der Sp. Therap*—after excepting diseases of other organs, comes to the conclusion that the chief causative factor is, the continuous enlargement of the uterus, such as occurs in frequent and repeated pregnancies, and does not incline to the view of Kattenbach and Ahlfeld in attributing the trouble to hysteria in any form, while not denying the vomiting of hysterical

origin occasionally seen, and apparently produced at will. He takes the ground that the mild form of morning sickness occurs in so large a proportion of woman, that it appears to him rather a form of reflex neurosis, due to the continuous growth of the uterus during pregnancy.

Behm takes the view that the causative factor is a toxin circulating in the blood, and he comes to that conclusion by reason of the successful treatment of the disorder in six consecutive cases with saline injections and the voiding of the toxic substance with the urine. He uses a quart of 6% salt solution, four to six times a day. His cases are reported in *N. Y. Medical Wochenschrift*, August, 1903.

As for treatment, all manner of drugs have been used and abandoned. I mention—narcotics, morphin, codein, opium, ether by mouth or clyster, chloral, bromides, cerium oxalate, ingluvin, hydrocyanic acid, nux vomica, ipecac, cocain, methol, orexin and ether. Erosions—cicatrices—have been treated, the os dilate and portio vaginalis has had cocain and silver solution applied in varying strengths failing with all, lavage of the stomach and rectal feeding has been used and abandoned, suggestion—dilatation—reposition has been done.

I now desire to suggest a line of treatment that I have had occasion to employ in a number of cases and with brilliant result. It is simply to put the patient in the knee-chest position every hour or two for five minutes at a time. It will serve in the severest cases, and is no less applicable to mild ones; where the method may be employed I feel confident that no severe cases will be seen.

DISCUSSION.

DR. HOLT asked if the vagina was opened while in the knee-chest position, so as to permit the ballooning of the vaginal wall? Dr. Czarnowski replied in the negative.

DR. LEMANN asked what theory he based his treatment upon? What theory did he accept and how did he explain the action of his treatment?

DR. CLARK asked the doctor did he attribute the relief of symptoms to the correction of displacement of the uterus? As yet he had not heard the doctor make any pretense of explaining his panacea.

DR. CZARNOWSKI related his experience with a patient who had been led to his office, she being unable to see, owing to the presence of albuminuria in 60 per cent. quantities. The woman stated that she was pregnant and her husband vouched that she vomited from 20 to 50 times within 24 hours. The knee-chest condition relieved the vomiting. Examination of the vagina at a later day revealed no pregnancy. He could not explain the theory on any scientific basis but thought that the relief of symptoms obtained by using this posture was due to relief of pressure.

DR. WATSON told of his utilizing this treatment in a case suffering from a constant nausea, due to pregnancy. During the entire time of two previous pregnancies she had suffered severely, being confined to her room or bed and had aborted the previous one at six months. Dr. Czarnowski having only recently told him of the treatment, he thought he would employ it, and to his great pleasure, after putting the woman in a knee-chest position for about ten minutes, the vomiting ceased. He had this position resumed every four hours during the day, simply as a safeguard against the recurrence of nausea.

DR. MILLER thought Dr. Czarnowski's successful treatment of so many cases rather emphasized the fact that vomiting in pregnancy was due to displacements more often than we usually supposed. Such a method would be of signal benefit in such cases and with our knowledge of the prevalence of abortion and the tendency of displacements of the uterus afterwards, it would be a good working rule to thoroughly examine the pelvis in every case of persistent nausea, or vomiting. Experience long since proved that a rigid external os, viz., those found in pronounced flexions of the uterus, especially anteflexions, were a frequent source of nausea. Too much should not be claimed for Dr. Czarnowski's suggestion, since we know that many cases are the result of faulty metabolism, kidney insufficiency and auto-intoxication. After all, dieting and rest in bed will relieve most of the cases. Dr. Miller had used the method of Dr. Czarnowski with success in cases of displacement. There are cases on record in which the fundus was caught under the pubes. These occurred in women, the subjects of anteflexions, and might be relieved by the postural treatment. It was in such a case that it was first demonstrated that dilatation of the

cervix would relieve the vomiting of pregnancy. Galvanism had been used with indifferent success.

DR. CAIRE spoke of a case of uncontrollable vomiting in pregnancy that he had treated two years ago, in which he called Dr. Czarnowski in consultation, who advised the employment of the knee-chest position. After 12 hours of intermittently being in the knee-chest position the patient was cured. Since that time he had had twenty-one cases in which he employed this treatment, and in each instance had relieved the patient.

DR. GRANGER had never heard of the use of galvanism applied to the os to relieve nausea and he believed that should the negative pole be placed within the external os it would very probably bring on abortion, on account of the dilating, softening and congestive effect of this pole. The positive pole should be applied to the pneumogastric nerve in the cervical region and the negative to the epigastrium, when treating these cases of uncontrollable vomiting with galvanism.

DR. MILLER asked the essayist had he used his method in those pernicious cases in which fatty degeneration had set in and a general puffiness of the body existed?

DR. CZARNOWSKI replied that he had never failed, except in one case, and he had the greatest faith in the knee-chest position for the relief of any form of nausea. He had found the use of tap-beer in tablespoonful doses every few minutes of great value in all forms of nausea. In children he used 15-drop doses of the beer.

DR. STORCK asked Dr. Czarnowski how long would the nausea cease in cases of carcinoma of the stomach when using this position.

DR. CZARNOWSKI replied that the nausea would cease instantly and the stomach remain quiet for quite a period afterwards.

DR. O. L. POTHIER read a paper on

A Preliminary Note on the Presence of Blastomycetes in Squamous Epitheliomata.

The subject of blastomycosis was brought up in 1894 by Gilchrist before the American Dermatological Association, when he described a double contoured budding organism that he found in the tissues of a case of skin disease. Since a number of reports have been made by Busse, 1895-1897, by Gilchrist and Stokes, 1898,

Buschke, in 1899, Hektoen, in 1899, Ophuls and Moffit, 1900, Montgomery and Ricketts, 1901, Walker and Montgomery, 1902, Ormsby and Miller, 1903, and the last by Otis and Evans, in 1903. The majority of these reports were made in cases of systemic blastomycosis, or on blastomycetic dermatitis, only one referring to the presence of the organism in a limited tumor (Montgomery and Ricketts' report). These different reports of cases brought to remembrance some investigation that I had made three years ago on the parasitic etiology of malignant growths. This subject was accidentally brought to my attention by one of the students of the Pathological Department finding well-marked actinomyces in a cancerous growth. I decided then to investigate more closely these cases and made sections and cultures from different varieties of growths, including carcinoma, sarcoma and epithelioma; especially the squamous variety of the latter, as it is the most prevalent.

The sections did not reveal much of interest. Whether this was due to the method of staining or to the fact that in tissue the organism is difficult of recognition, but the cultures brought forth a peculiar organism, with which I was not at that time familiar. These cultures were obtained from fourteen cases of squamous epitheliomata of the head and face.

On studying these growths I found that they gave the characteristic appearance of blastomycetes. They grew as thick, opaque growth on solid media. In fluid media they gave a flocculent appearance to the fluid, which was not cloudy when first observed, but contained flocculent matter resembling small white particles held in suspension; on shaking the culture became turbid. On examining the cultures in hanging drops the cultures were seen to be composed of small and large round double contoured cells which, occasionally, the larger ones especially, contained small bodies in their interior. These were the most frequent forms that I observed. In none of my cultures did I find formation of mycelia; few of these round bodies, however, presented the appearance of budding. This series of cases extended over a period of six months, during which specimens were examined and cultivated, while at the same time I was busy with the routine work of the Department, in fact to such an extent that notwithstanding the interest of the subject, I had to desist until a more opportune time.

From the cultures obtained I inoculated four animals, a male and female cat, a male rabbit and a female guinea-pig. The male animals were inoculated in the testicles, while the females were inoculated in the mammary glands. The local conditions for a few days after the inoculation showed enlargement of the parts, which were swollen and tender, this gradually disappearing and leaving the parts apparently well. Six weeks after the inoculations the first of the animals to die was the guinea-pig. For several days before the animal was seen to have rapidly emaciated, notwithstanding that he was fed and ate as usual. Death was preceded by convulsions several hours before, the animal remaining in a helpless condition until death.

The autopsy did not reveal anything noteworthy and the mammary gland was normal. The other animals were all gradually losing weight and a week after the death of the guinea-pig, the rabbit died, death being also preceded by convulsions.

The autopsy on the rabbit did not reveal anything of note, with the exception of a small nodule found in the folds of the mesentery. Upon microscopic examination the nodule was found to be composed of epithelial tissue, but was not characteristic of any tumor. The two cats were greatly emaciated, the male died first, two months after inoculation and the female followed two days after. Both died in the same way as the other two animals, death being preceded by convulsions. In the last two animals though a more careful search was made as to the cause of death, nothing could be found at the autopsy except the extreme emaciation of the animals, which was also characteristic of the guinea-pig and rabbit. The degree of emaciation in these four animals was remarkable, though, as said above, they fed as well as usual. They became weak progressively as the emaciation increased and were all taken with convulsions several hours before death.

On account of other pressing work at the time, I regret not having been able to devote more time to these investigations. The recent work done by others along these lines called my attention to this work, which I thought might throw more light on some cases of epitheliomata. As stated above these epitheliomata were from the face and were of the squamous variety. I have not made any examination of other forms of epitheliomata.

In preparing my tissues for cultures, specimens were taken in an aseptic condition, wrapped in sterilized gauze and taken to the laboratory, where pieces were introduced in a liquid medium and crushed with a sterilized glass rod and put in the incubator.

For these cultures I used a culture medium composed of one gramme of peptone, one gramme of sugar, 100 *c. c.* of water, to which enough acetic acid was added to make the medium decidedly acid. To this mixture 1½% of agar was added for the solid media. This medium seemed to act as a special medium, eliminating the presence of pus and other organisms. The blastomyces grow on ordinary culture media.

The observations here given are not as complete as they might be for reasons already noted, but the subject needs more investigation and I hope to be able at some future date to give more attention to it.

DISCUSSION.

DR. DYER said that he was sorry that Dr. Pothier had overlooked any mention of the two cases reported by him, the first being the eighth case to be described. It was fully two years ago that he had spoken with Dr. Pothier regarding his second case, and then urged that the doctor report his observations regarding blastomyces in epithelioma. Since that time, Heidingsfeld, of Cincinnati, and Anthony, of Chicago, had repeatedly called attention to the fact that this fungus was found associated with other diseases. The importance of Dr. Pothier's research to the average medical man was not easily appreciated, but to those especially interested in skin diseases, it is one of the most valuable contributions yet submitted on this line of observation. There was a considerable difference of opinion among investigators as to whether a blastomycetic condition of the skin was a distinct entity or occurred as complicating some other affection. The condition clinically did not differ very much from an ordinary papillomatous and granular epithelioma.

DR. GESSNER did not hear Dr. Pothier say whether any tumors resembling epithelioma had been reproduced in the subjects in which the cultures had been inoculated?

DR. POTHIER, in conclusion, said that it had been an oversight on his part in not including Dr. Dyer's case in his paper. As he had

said, there had been nothing pathological in his subjects after death, except a marked emaciation. It seems strange to him that the animals should have died from convulsions, yet showed nothing pathological upon microscopic examination of the tissues from various parts of the body.

DR. A. GRANGER read a paper on

The Treatment of Cancer by Mercuric Cataphoresis.

In this paper the term cancer is used as suggested by Coley to include both cancers and sarcomas, except when otherwise specified. Statistics, both in this country and in Europe, confirm the view that cancer is increasing and also show that earlier diagnosis, earlier operation and improved technic have been insufficient to offset the increasing mortality from this cause.

These facts have led to a more thorough study of the etiology and pathology of the disease and although the subject is still under active investigation and discussion, enough evidence has already been furnished to take cancer out of the list of constitutional diseases and place it among the local infections.

Cancer, therefore, is a local disease at its point of origin and remains so until after dissemination throughout the region surrounding it, the infected cells reach the circulation, resulting in metastasis and the formation of daughter-tumors, wherever the cells are mechanically arrested in the capillaries.

If treated by thorough removal or destruction of the disease and all infected cells, wherever situated, before metastasis has taken place, these cases can be cured. It is evident that the success of the treatment will be directly proportional to the accessibility of the growth, to the earliness of treatment, and to the possibility of removing or destroying all the infected cells of the primary growths and outlying colonies.

To accomplish this will be found especially difficult by ordinary surgical methods when the growth is situated within cavities such as the nose, mouth, throat, vagina and rectum. The difficulty or even impossibility, of removing all contaminated parts by the knife or curette, leads to an incomplete eradication, with the resulting quick recurrence due to the stimulation of the proliferating organ-

ism left in the periphery of the wound by the quickened trophic process evoked in healing. That the absorbent surface created by the curette makes auto-infection of the fresh edges of the wound not only possible but probable, has been proven by the actual instances collected by Cullen in his recent work on "Cancer of the Uterus," and the clinical history of the more malignant cancers after curettement almost invariably records a more rapid subsequent progress of the disease.

In this class of cases, also, the X-Ray has proved least effective, because of the necessity for cutting off all but a few of the rays in their passage through the speculum, and the impossibility of deflecting even these few effective rays after traversing the speculum so as to reach the whole of the diseased tissues. The peripheral portion of the growth where the process is spreading is that which it is most important to bring under the influence of the rays, and that is the very portion which the speculum fails to expose.

Fortunately, the good results obtained by Dr. Massey, in this class of cases, with the method which forms the subject of to-night's paper, places them in a position of a most hopeful prognosis.

MERCURIC CATAPHORESIS.—This method was discovered and introduced by Dr. Massey between the years 1893 and 1897. It consists in cataphoric destruction of all the infected cells, in situ, by the nascent salts of mercury. These salts are formed in the growth by the action of electricity upon the metallic mercury introduced by means of the electrodes, and are then diffused through the growth in all directions, uniting with the protoplasm of the cells, germs, and all to form dead albuminates of mercury. The dead mass thus formed is aseptic and odorless until it drops off, leaving a clean wound to be healed by granulation. This area of destruction which should extend to the apparent limits of the growth, is "surrounded by a zone of sterilization of varying extent, within which the diminishing density of the radiant chemicals leads to the death of the lowly organized cancer cells only, the normal tissue being merely stimulated to a greater physiological resistance."

To accomplish these results, it is necessary to use a current of from 300 to 800 ma., for from one-half to two hours, depending upon the extent of the growth. The application is made under cocaine or general anesthesia. The tumor becomes lead colored, dry,

odorless (if in the stage in which odor exists), and the subsequent progress of the case is unattended by pain.

PHYSICAL LAWS INVOLVED IN THE METHOD.—When a cancer, tumor or other portion of the body, is subjected to the action of a direct current, electrolytic decomposition occurs, the water containing tissues, being resolved into their simplest chemical elements, the oxygen and chlorine finding its way to the positive pole and appearing in a free state when actually reaching it and the hydrogen and bases at the negative pole. At the positive pole the free oxygen and chlorine unite with the mercury, to form an oxychloride of mercury, if the electrode is of an unattackable metal, such as gold or platinum; or a double oxychloride of zinc and mercury, if the electrode is of zinc. These molecules of mercuric chloride now become cathode seekers instead of anode seekers and are forced by the still flowing current away from the positive pole, radiating along the paths of least resistance toward the distant negative pole.

Thus a steady radiating stream of molecules laden with nascent mercury salts passes to the interior and to all sides along the most cellular paths, (*i. e.*, those containing the colonies of cancer cells). In their passage through and between the cells, these salts of mercury unite with the albumen of the cells to form dead albuminates.

“The distance traversed by the molecules of the oxychloride of mercury depends upon the atomic weight, the potential of the current and the duration of the application. From clinical observations, however, it was determined that 400 ma. from 160 volts would spread an effective density of mercuric salts about one-half inch in every ten minutes of its application, enabling the operator effectively to destroy an average growth and sterilize its surroundings in from one-half to two hours.”

To show the different action of the poles and that electrolysis and cataphoresis exist and act, we will demonstrate now.

Egg test.—The shell and yolk have been removed leaving the hard, firm, white albumen which has no fluid apparently, but the albumen has a moisture supplying the necessary fluid. We insert copper needles through the white albumen on a parallel line, connecting the other ends of the cords to the two poles of the battery,

which is put in operation. In a few minutes we perceive the result of the electrolytic action and see the disintegration of the copper needle at the positive pole and the nascent oxychloride of copper is evolved, producing a beautiful green tint, showing clearly the electrolytic action. As we continue the application we notice the greenish tint spreading away from the positive needle in all directions, demonstrating clearly the cathodic action of the current.

CLINICAL PHENOMENA DURING AND AFTER THE APPLICATION.

—“The whole apparent limits of the growth having been softened and changed into a leaden or greyish eschar, the operation is completed and the removal of the dead material and of the deposited salts is left to the process of nature. As a rule, no pain is felt after the patient recovers from the anesthetic, if one has been used, though a sensation of heat and some soreness persists for several days. If the case presents foul odors from an ulceration the odor will cease during the passage of the current and will not return at any time during the reparative process, even though a large eschar be present, on account of the large quantity of the mercuric salts impregnating it.

“On examining the site of operation it will be found that the whole of the growth is included in an area of necrosis limited by the extent of the decolorized and softened tissues, at the edge of which a line of demarcation becomes apparent in a few days. Beyond the line of demarcation a puffy, somewhat reddened zone will gradually develop within a day or so, constituting the zone of sterilization within which enough of the salts have been deposited to kill the cancer germs without necrosis of the stroma. This zone shades off into the unaffected tissues somewhat irregularly in accordance with their varying conductivity, the more cellular planes or those containing the yet undeveloped colonies of cancer cells, resulting in the widest extent of the microbicidal agents. The line of demarcation becomes complete in from seven days to three weeks, in accordance with the lesser or greater amount of fibrous tissue present, when the eschar comes away, leaving a healthy excavation, which speedily fills with normal granulation. During this process there is a considerable flow of a greyish staining liquid from the edges, which doubtless contains much of the diffused chemicals. A small portion of the mercury is evidently absorbed

into the general circulation, as evidenced by the characteristic alterative and tonic effects; but in no case has ptyalism or any other untoward effect been found."

SUMMARY OF CASES.—The author is greatly indebted to Dr. Massey for the preparation, for this paper, of a carefully tabulated report of 58 consecutive and non-selected cases in which he employed this method. This report Dr. Massey has brought to date by making personal or written inquiries into the present health of those patients reported as clinically cured.

Appreciating the fact that the reading of tabulated statistics is at best, dry, I will present a brief summary of the cases and append the statistics for reference and further information of those who may be interested.

The method was used in 58 cases (47 cancers and 11 sarcomas), ranging between the ages of 5 and 83. Of these 46 were inoperable. 19 (33%) are clinically cured. 10 (17%) cured over 3 years. 6 (10%) cases well after 5 years. The method failed to give any results in 12 cases. The ultimate result in one case is not known and two died during the operation.

Of the inoperable cases 46 in number, 11 (21%) are clinically cured and 4 (9%) of these have passed the 3-year limit. In 16 of the 19 cases clinically cured, both microscopical and clinical diagnoses were made. The two cases that died during the operation were both hopelessly inoperable, and the treatment was used as a local palliative: one was a carcinoma of the left tonsil interfering by its size and pressure with respiration and the heart's action—respiration and heart both ceased about a half hour after beginning the application; the other an immense congenital sarcoma of the orbit recurrent after removal of the eye nine months before—post-mortem examination revealed direct extension of tumor into the brain.

With two exceptions the cases reported as failures were hopeless and inoperable ones, in which the method was tried, as a last resource, hoping to give some temporary local palliation. Five of these; (1) a recurrent carcinoma of the chest wall subsequent to five operations; (2) a recurrent carcinoma of cervix following amputation four months before; (3) an immense recurrent sarcoma of the neck following five knife operations; (4) a recurrent sarcoma

of both groins, following removal of the left testicle for sarcoma; (5) immense recurrent sarcoma of palate extending through angles of jaw and neck, following recent knife operation and threatening suffocation, all desperate and inoperable, died shortly after the application was made.

Cases 13 and 18 considered as temporarily benefited, would have been among the cures, had the treatment been properly followed. Case 13, a cancer of the tongue, after local eradication, the disease recurred in the glands of the neck and patient refused further treatment; case 18, recurrent rodent ulcer of the face following currettement, after local eradication, patient neglected to have a small recurrent spot treated.

CARCINOMA.—Of the 47 carcinoma cases 21 were recurrent after some cutting operation. 36 were inoperable, of the latter 9 (25%) were clinically cured. 4 (11%) cured over 3 years. The method was a palliative in 20 cases and gave no results in 7. In 14 cases metastasis existed prior to the use of the method; 7 of these died without local recurrence, and one was living at last accounts without local recurrence.

Eleven cases were operable; 8 of these are cured (72½%); 4 (36¼%) have passed the 3-year limit. The method was a palliative in two cases and proved a complete failure in one case.

The regions were involved as follows:

Breast, 15 cases—13 of these inoperable—clinically cured, 3; died of metastasis without local recurrence, 6; palliative, 2; failure, 3.

Face, 6 cases; inoperable, 4; clinically cured, 2; palliative, 2; failure, 2.

Mouth, 6 cases; inoperable, 3; clinically cured, 2; palliative, 3; failure, 1.

Cervix, 7 cases. Owing to the relative frequency of cancerous involvement of these and the rectal tissues, and the fact, as mentioned above that operative procedures and the X-Ray have given poor results in this class of cases, we will report the results in this and the following region more fully.

The one operable case was diagnosed both microscopically and clinically. The patient was cured and is now dying of phthisis pulmonalis seven years later. Of the six inoperable cases, one

lived several months, dying of internal dissemination without return of the local symptoms; another died of peritonitis six days after the operation. In all four of the remaining cases the method afforded temporary local palliation, prolonging life several months in one case, three months in two cases and the ultimate results in the fourth case is not known. Two of the four cases were recurrent after some cutting operation. The broad ligaments had become involved in all four, in two the vaginal walls were also involved and in one there was extension to the recto-vaginal septum and pelvic floor.

Rectum, 4 cases. In all the diagnosis was made both microscopically and clinically; they were all inoperable. The upper rectum was involved in two cases and the lower rectum in the other two. Both the latter cases were recurrent, one following a modified Kraske operation ten months before; the other a perineal operation six months before. In the last case a large area was affected around the anus and to a point three inches above it, together with the vulva and the vagina. The X-Rays were used for a while with great improvement of the exposed part of the growth, but the part situated higher up continued to spread.

One of the cases involving the upper rectum is cured, the patient remaining well eight years later. The other case, in which there was almost complete stenosis is in poor health, but there is no local return one year after the use of the method.

Of the recurrent cases, the disease was apparently eradicated and health restored in the one following the Kraske operation, the patient lived two years, dying probably of metastasis, but without local return; the other following the perineal operation remains well seven months after the use of the method, and is considered clinically cured.

Other parts not Mentioned 9 cases. Inoperable, 6; clinically cured, 4; palliative, 4; failure, 1.

SARCOMA.—Eleven cases, ten of which were inoperable; two are cured (1) a sarcoma of soft and hard palate, size of a goose egg, and threatening suffocation; patient well nine years later; (2) a spindle-celled sarcoma of the upper maxilla, displacing three teeth by protrusion into the mouth and causing protrusion of molar process and of arch of hard palate; patient well at the end of six years.

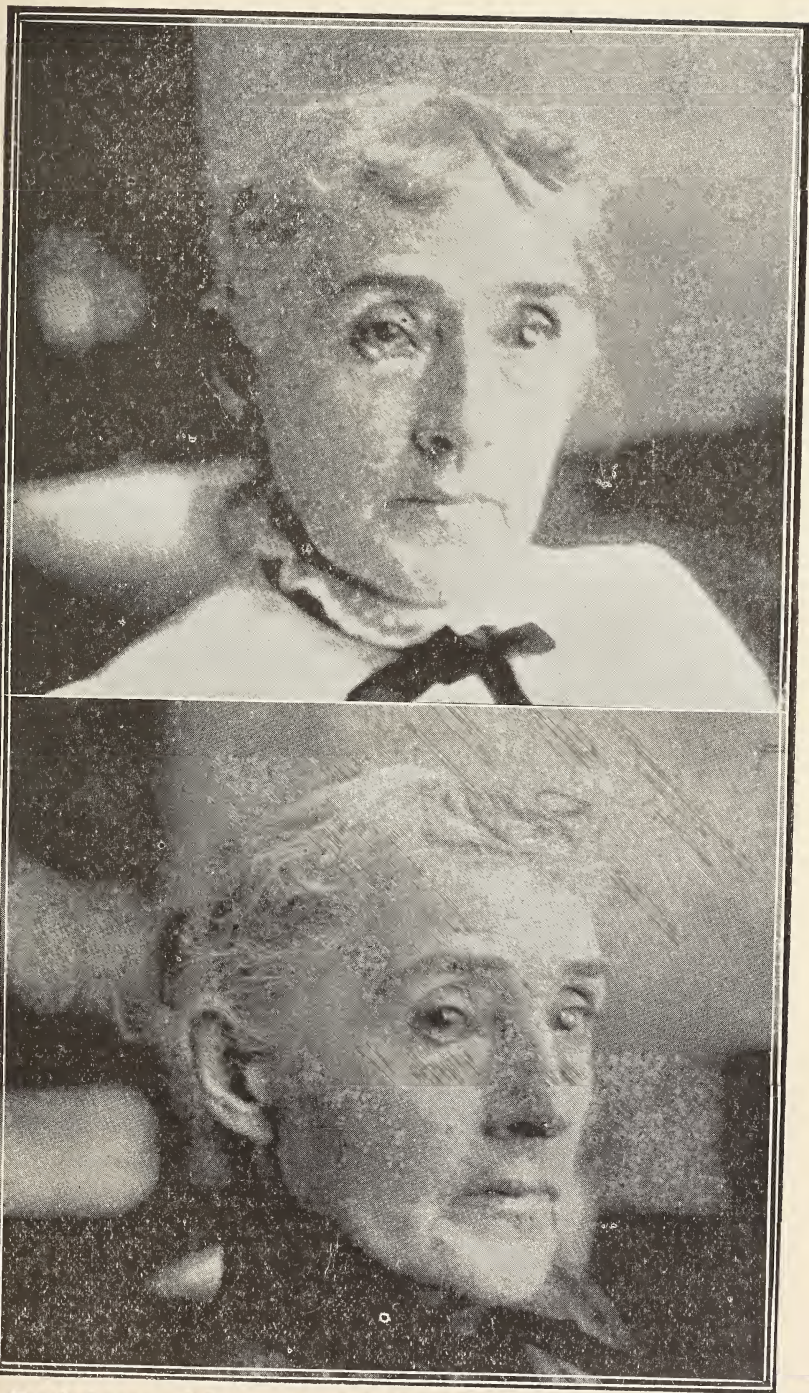
AUTHOR'S CASE.—My own experience is limited to the treatment of the case which I present to you to-night.

This patient, who is 60 years old, first noticed the growth on her lower eyelid, about 4 years ago. She has been under the treatment of several physicians during that time. For a period of six months ice was kept against the lid all day long. Later iodoform and aristol were dusted over the ulcer. On the 27th of September, 1902, the patient was exhibited before this Society by Dr. E. W. Jones, who had been using chlorate of potash, enclosed in a small muslin bag, and applied over the lid with adhesive plaster. The doctor stated that there was much pain, and the growth was increasing rapidly when he began the use of the chlorate of potash, two months before. That there was now (September 27, 1902,) a marked improvement, little or no pain, and the growth was not one-third of the size it was a month ago.

This improvement was only temporary; the patient continued to use the small bag for two months longer, when she discontinued, and sought the advice of another physician, as the pain had returned and the ulceration was spreading anew. She remained under the latter physician's treatment without any benefit until September 22, 1903, when I first saw her. At that time the growth involved the inner canthus, the inner three-fourths of the lower eyelid and was growing steadily. It was ulcerated, painful and hemorrhagic. The lower eyelid was tight and indurated, especially so about the inner canthus.

I succeeded in destroying the diseased area by three applications with the zinc-mercury points under cocain anesthesia. The current ranged from 5 to 10 ma. and the duration of application from 5 to 13 minutes. The last application was made September 30. Two days later a tiny zone of sterilization could be seen in the sound tissue surrounding the zone of necrosis, the latter had all sloughed off by October 11, leaving an excavation which was soon filled up by healthy granulation tissue.

Now there is no evidence of malignancy, the eyelid is not drawn as tight, the eyeball can be moved more freely, there is no pain, and the healing process at the inner canthus has exceeded my most sanguine expectations. The extreme nasal end of the lower eyelid, which was involved by the disease and which sloughed off after the



Epithelioma of Lower Eyelid (Dr. Granger's Case) treated
by Mercuric Cataphoresis.

application, is replaced by healthy tissue, so that no difference can be detected between the inner commissure of the eyelids of this and the opposite side.

CONCLUSIONS.

I. The method is capable of eradicating many growths as thoroughly as the knife, and yet bloodlessly, thus being adapted to situation where vascularity is great, and conserving the strength of the patient, who is frequently weakened by the loss of blood, attending removal by the knife or curette.

II. It is incapable of producing an autoinfection of the edges of the destroyed area, because no infected cells of germs can exist within the effective radius of its energy.

III. The apparently healthy tissue beyond the slough is not only rendered inocuable, but is sterilized by the diffused chemicals, which tend to be forced along the paths of cancer proliferation, because these have a greater conductivity than the normal tissue. Besides a true selective action also results from the fact that cancer cells succumb more quickly to the diffused chemicals than normal cells.

IV. As a cure or palliative in growths within the vagina or rectum it has proved of inestimable value, especially so on account of the inadequacy of the other methods of treatment. We can harmlessly and easily transmit the cataphoric products to the site of application by means of a conductor of comparatively small calibre so insulated as to absolutely protect the outer healthy parts of the canal, and yet capable of definite and controllable diffusion from the point of the conductor uncovered by insulation. We thus possess a means for the immediate destruction of malignant growths in the middle, and possibly the upper rectum without damage to or dilatation of the unaffected portions of the canal below the disease.

V. The cataphoric method offers the most practical and speedy process for the destruction of any local recurrences after the knife operation, if internal dissemination has not occurred, small subdermic growths, within the course of lymphatic vessels being even removable under the local application of cocain or eucain.

VI. In conclusion, I fully agree with Dr. G. G. Davis when he says, "the performance requires study, work and expense, and while these may be excuses, I do not regard them as proper reasons for not giving the method more extensive trial."

TABULATED LIST OF CASES OF CARCINOMA.

Consecutively Treated by the Massey Method.

1. July, 1893. Mr. H. Aged 62. Primary carcinoma of inguinal gland in left groin. Clinical diagnosis. Repeated daily zinc-mercury cataphoresis under cocain, 50 to 100 Ma., for 30 minutes. Partial eradication. Erosive advance of disease into femoral artery at end of five months; hemorrhage arrested by ligation; death from gangrene of leg.

2. February, 1895. Mr. B. Aged 55. Large rodent ulcer of face. Clinical diagnosis. Daily zinc-mercury cata., 30 to 40 Ma. Partial eradication. Continuance of growth and death one year later. Treatment used but six weeks.

3. October, 1895. Mr. V. Aged 50. Adeno-carcinoma of upper rectum. Microscopic (Stengel) and clinical diagnosis. Daily zinc-mercury cata., 40 to 100 Ma., with hollow bulbous instrument. Eradication. Patient cured. Treatment lasted six months.

4. June, 1896. Mrs. A. Aged 49. Squamous celled carcinoma of cervix uteri. Microscopic and clinical diagnosis. Daily zinc-mercury cata., with blunt electrode. 100 Ma. for 15 minutes during six weeks; later weekly applications for six months. Eradication. Patient cured, dying of phthisis pulmonalis in May, 1903, seven years after treatment.

5. November, 1896. Mrs. M. Aged 42. Recurrent carcinoma of breast after removal by knife three years previously. Clinical diagnosis 1,000 Ma. with zinc-mercury points for 15 minutes under ether. Second application in June, 1897. Partial eradication. Patient died of metastasis one month after last application. Metastasis present prior to treatment.

6. September, 1897. Mrs. R. Aged 50. Inoperable carcinoma of cervix uteri, with involvement of broad ligament. Clinical diagnosis 80 to 130 Ma. with blunt zinc-mercury electrode, at intervals of two days. Local palliation. Patient's condition grew gradually worse, ending in death several months later. Metastasis present prior to treatment.

7. September, 1897. Mr. McF. Aged 57. Recurring epithelioma of lip of large dimensions. Clinical diagnosis. 1000 Ma. with zinc-mercury points for 23 minutes under ether. Disease only partially destroyed. Continuance of growth and death six months later.

8. September, 1897. Mrs. I. Aged 48. Recurrent carcinoma of cervix, following curettement 3 months before. Clinical diagnosis. Minor applications of 100 Ma. gold-mercury and zinc-mercury bulbous electrodes. Relief of pain, odor and hemorrhage. Death occurred several months later from internal dissolution. Metastasis present prior to treatment.

9. October, 1897. Mrs. I. Aged 36. Fulminating carcinoma

of both breasts. Clinical diagnosis. 800 Ma. iwth tubular gold-mercury electrodes, Oct. 16, for 14 minutes under ether. Second application, October 26, 350 Ma. for 10 minutes. Third application, December 11, 1200 Ma. for 30 minutes. Local eradication seemed complete. Death occurred several months later from internal dissemination. Metastasis present prior to treatment.

10. November, 1897. Mrs. B. Aged 63. Recurrent carcinoma of right breast, with infected gland at angle of scar in axilla, following removal by knife ten months before. Microscopical (Richardson) and clinical diagnosis. 500 Ma. gold-mercury, under ether, for 15 minutes, Dec. 11, 1897. Second application, 200 Ma. for 25 minutes to gland, August 16, 1899. Eradication. Complete cure of the disease; the patient dying three years later of affection said to be non-cancerous.

11. December, 1897. Mrs. A. Aged 66. Carcinoma of sublingual salivary gland, left side, followed later by development in similar gland on opposite side. Clinical diagnosis. 400 Ma. gold and zinc-mercury for 30 minutes, under ether. Second application, Dec. 29, 350 Ma. for 30 minutes. Third application, March, 1899, to similar disease in opposite gland; 350 to 400 for one hour. Fourth application, November 3, 1899, 350 to 400 Ma. for one hour. Fifth application, June, 1901, 200 Ma. for 45 minutes. Eradication. Complete cure of the disease. Bone sequestra came away after each of the stronger applications. Patient well at last accounts.

12. February, 1898. Mrs. J. Aged 50. Recurrent carcinoma in scar after removal of right breast 3 years before. Clinical diagnosis. 800 Ma. gold and zinc-mercury, for one hour. Local eradication. Patient died several months later in internal dissemination to supra renal glands. Metastasis present prior to treatment.

13. May, 1898. Mr. Q. Aged 42. Carcinoma of dorsum of tongue, involving one-fourth of surface. Clinical diagnosis. 500 Ma. zinc-mercury points, or 45 minutes. Local eradication. Disease recurred in the glands and neck. Patient refused further treatment.

14. July, 1898. Mrs. L. Aged 45. Carcinoma of left tonsil, interfering by its size and pressure with respiration and heart action. Clinical diagnosis. 500 Ma. zinc-mercury point, for one-half hour, with sudden cessation of respiration and heart action. Death. Patient was in extremis at time of application from ulceration into important vessels and nerves.

15. April, 1898. Mr. P. Aged 55. Recurrent carcinoma of floor of mouth, following operation with knife and curette. Both sides affected. Microscopic (Corwin) and clinical diagnosis. 500 Ma. gold-mercury for 30 minutes, mainly to right side. Second applica-

tion, July 6, 450 to 500 Ma. for one hour to left side. Third application, November 13, 200 to 400 Ma. for $1\frac{1}{4}$ hour. Partial eradication, followed by recurrence. Prolongation of life without arrest of disease. Death one year later from internal dissemination. Metastasis present prior to treatment.

16. November, 1898. Miss B. Aged 51. Carcinoma of right breast, outer and lower quadrant. Clinical diagnosis. 400 to 475 Ma. with gold-mercury electrode for 40 minutes. Eradication with breast saved. Complete cure. Remains well five years later.

17. January, 1899. Mr. R. Aged 66. Carcinomatous wart of face. General health feeble from paresis. Microscopic (Grier) and clinical diagnosis. Daily applications of zinc-mercury points, under cocain diffusion, 10 to 15 Ma. Eradication. Complete cure. Patient died of paresis three years later.

18. January, 1899. Dr. D. Aged 66. Recurrent rodent cancer of face, after curettement. Duration of growth 20 years. Growth measured 2 by $1\frac{1}{2}$ inches, eroding malar and temporal bones. Clinical diagnosis. 5 to 10 Ma., with zinc-mercury points daily for three months. Reduction to size of pea. Patient neglected to continue treatment to minute spot of recurrence, resulting in re-growth later.

19. March, 1899. Mrs. M. Aged 50. Recurrent carcinoma on right side of face, following destruction of cancer of lip by caustics (very extensive). Clinical diagnosis. 500 Ma. with zinc-mercury points for 40 minutes. Second application, Mch. 21, 500 Ma. for $1\frac{1}{4}$ hours. Third application, April 11, 400 to 800 Ma. for $1\frac{1}{4}$ hours. Failure to eradicate. Very temporary amelioration. The local disease advanced without check to fatal termination about one year later. Local dissemination too great for a successful use of method.

20. March, 1899. Mrs. S. Aged 57. Acinous carcinoma involving whole of left breast; axillary glands not involved. Cachectic. Clinical diagnosis. 700 to 800 Ma. with zinc-mercury points for $1\frac{1}{4}$ hours. Complete local eradication. Patient succumbed some months later to internal metastasis without reappearance of local growth. Metastasis present prior to treatment.

21. April, 1899. Mrs. K. Aged 44. Acinous carcinoma involving whole of left breast and with axillary involvement. Cachectic. Clinical diagnosis. 400 to 500 Ma. with zinc-mercury points for one hour and 20 minutes, applied to both breasts and axilla. Partial eradication. Disease recurred later in tissues between sites of application. She had this removed by caustics, but succumbed ultimately to pre-existent metastasis. Metastasis prior to treatment.

22. April, 1899. Mrs. M. S. Aged 38. Recurrent carcinoma after removal of right breast by cutting operation two years pre-

viously. Clinical diagnosis. 400 Ma. with zinc-mercury points for one hour. Local eradication. Patient died two years later of metastasis without local recurrence. Metastasis present prior to treatment.

23. April, 1899. Mrs. M. Aged 57. Recurrent carcinoma of cervical glands following removal of similar growth by knife 5 years before. Microscopic (Ashurst) and clinical diagnosis. 300 to 400 Ma. with gold and zinc-mercury electrodes for 40 minutes. Local eradication of affected glands. Apparent recurrence in neighboring glands one year later. General health poor at this time. Metastasis present prior to treatment.

24. September, 1899. Mrs. L. Aged 45. Recurrent squamous celled carcinoma of left fauces of large size, following removal by curette one year before. Microscopic (Ward) and clinical diagnosis. 200 to 375 Ma. with zinc-mercury points for one hour, September 6. Second application, September 24, 250 to 400 Ma. for 1½ hours. Third application, November 2, 300 to 400 Ma. for 2 hours. Partial eradication. Great local improvement after each application, but disease progressed unchecked near carotid artery, erosion of which, caused death two months later. Surgeons had declined to operate.

25. December, 1899. Mrs. J. Aged 61. Carcinoma of pelvic floor in extension from carcinoma of cervix; all parts matted together and indurated; extension down vagino-rectal septum. Clinical diagnosis. 400 to 600 Ma. with gold-mercury instrument, for 50 minutes. Partial eradication. Patient returned home, Port of Spain, Trinidad, with less pain, though troubled with recto-vaginal fistula. The disease returned later. Her physician reported the application had prolonged life three months. Eminent surgeons had declined to operate.

26. December, 1899. Mrs. Y. Aged 41. Extensive recurrent carcinoma of chest wall and axilla, following two operations with knife, the last 2½ months before. Cachexia present in moderate degree. Microscopic and clinical diagnosis. 600 to 700 Ma. with zinc-mercury points for 2½ hours. Partial eradication. The applications appeared to remove all traces of disease in chest wall and axilla, but patient's general condition continued bad and she died some months later from intra-pleural metastasis. Metastasis present prior to treatment.

27. February, 1900. Miss H. Aged 62. Extensive recurrent carcinoma of chest wall, subsequent to five operations, the last one year ago. The nodules are widespread and general health poor. Microscopic and clinical diagnosis. 400 to 600 Ma. with zinc-mercury points for 2¼ hours. Apparent eradication, but failure to heal completely. Patient died of hemorrhage from unhealed area one

month later, but little effort towards repair having appeared. Metastasis present prior to treatment.

28. September, 1900. Mr. B. Aged 59. Recurrent carcinoma of the left side of lip, following operative removal seven years before. Microscopic and clinical diagnosis. 250 to 350 Ma. with zinc-mercury points for one hour, followed later by office applications of 10 Ma. zinc-mercury to part missed. Complete eradication. Patient remains well at present day.

29. October, 1900. Miss M. Aged 37. Small primary squamous celled carcinoma of upper jaw. Microscopic (Cryer) and clinical diagnosis. 25 Ma. with zinc mercury-point under cocain, repeated daily for six times. Complete eradication. Patient remains well at present time.

30. January, 1901. Mr. P. Aged 60. Recurrent carcinoma of floor of mouth and tongue, following operative removal with knife seven weeks before. Microscopic and clinical diagnosis. 400 to 500 Ma. with zinc-mercury points for $2\frac{1}{4}$ hours. Partial eradication. The treatment was decidedly palliative, patient regaining strength for a time. On recurrence in neck appearing he was referred to Dr. Edward Morgan, who removed lower maxilla on affected side and soft parts down to level of larynx, with temporary benefit.

31. March, 1901. Mrs. D. Aged 53. Large recurrent carcinoma of right parotid gland, following removal by eminent surgeons in 1884, in 1891, and in 1892 and several caustic applications. Microscopic (Phila. Clin. Lab.) and clinical diagnosis office applications of 15 to 30 Ma. with zinc-mercury points, extending through $1\frac{1}{2}$ years almost daily. Complete eradication. Complete cure, with very little scarring, and relief of a facial paralysis produced in first operation.

32. April, 1901. Mrs. C. Aged 63. Extensive ulcerated carcinoma of right chest wall and axilla, the breast having disappeared by ulceration. General health poor. Microscopic (Flexmer) and clinical diagnosis. 600 to 700 Ma. zinc-mercury points for $2\frac{1}{4}$ hours. Second application, August 12, 800 Ma. 1 hour and 35 minutes. Third application, January 28, 1902, 500 Ma. for 2 hours. Fourth application, September 26, 1902, 600 Ma. for $1\frac{1}{2}$ hours. Fifth application, March 11, 1903, 400 to 600 Ma. for $1\frac{1}{2}$ hours. Complete eradication after last application. Previous applications secured partial destruction. Complete eradication, with edema of left arm apparently due to pressure of scar tissue on axillary vessels. General health good. The great dimensions of tumor, 11 by 5 inches, and weakness of patient, prevented thorough work in earlier applications.

33. August, 1901. Mrs. J. Aged 36. Extensive recurrent carcinoma of right chest wall, following Halstead operation for cancer of breast eight months before. Arm greatly edematous.

Microscopic and clinical diagnosis. 1200 Ma. gold and zinc-mercury points for three hours. Destruction of center of growth and relief of pain. Patient died, apparently of thrombosis three weeks later.

34. September, 1901. Mrs. C. Aged 33. Carcinoma of right side of nose threatening loss of eye. Large secondary infection of glands of neck. Microscopic and clinical diagnosis. 200 to 300 Ma. with fine zinc-mercury points for 1 hour and 20 minutes to primary growth only. Eradication of primary growth; palliation. Destruction of nose and eye avoided. The patient ultimately succumbed to the secondary growth three months later. X-Rays had been used previously.

35. October, 1901. Mrs. T. Aged 60. Recurrent carcinoma of rectum following modified Kraske operation 10 months before. Microscopic and clinical diagnosis. Gold-mercury application 400 to 650 Ma. 1 hour and 50 minutes, October 26. Second application, December 15, 200 to 300 Ma. for 40 minutes to unhealthy granulations. Apparent eradication and restoration to health. Patient lived about two years, dying probably of metastasis.

36. October, 1901. Mrs. P. Aged 65. Carcinoma of right breast and axilla. Patient pale and in poor health. Microscopic and clinical diagnosis. 400 Ma. with zinc-mercury points for $\frac{1}{2}$ hour to both breast and axilla. Complete eradication. Parts healed with perfect scar and did not recur. Patient's health, however, remained poor, and she died of metastasis eleven months later. Metastasis present prior to treatment.

37. December, 1901. Mrs. P. Aged 35. Recurrent carcinoma of cervix uteri, following amputation four months before. Microscopic and clinical diagnosis. 500 to 700 Ma. with gold-mercury electrode for two hours. Peritonitis developed with fatal termination 6th August.

38. December, 1901. Mrs. H. Aged 68. Primary carcinoma of bridge of nose, fulminating type. Microscopic and clinical diagnosis. 170 to 200 Ma. with zinc-mercury points for 50 minutes. Complete eradication. Complete cure with slight sinus in nose, which will require repair.

39. March, 1902. Mr. McW. Aged 55. Small epithelioma of chin of slow growth. Clinical diagnosis. 50 Ma. for 30 minutes, zinc-mercury points, under cocain. Complete eradication. Remains well.

40. March, 1902. Mrs. W. Aged 50. Large area of epithelioma on arm, extending into bone. Microscopic and clinical diagnosis. 350 Ma. with numerous zinc-mercury points for 50 minutes. Complete eradication. Complete final cure though healing was slow.

41. April, 1902. Mrs. W. Aged 58. Recurrent *cancer en cuirasse* of right cheek, following removal of breast by knife two

years previously. General health poor. Microscopic and clinical diagnosis. 600 to 800 Ma. with zinc-mercury points for three hours, April 25. Second application, May 19, 500 Ma. for two hours. Very slight effect. Hemorrhage temporarily controlled. No permanent benefit. Patient ultimately succumbed to local disease. The method is not adapted to cases of extensive *cancer en cuirasse*.

42. June, 1902. Mrs. K. Aged 48. Recurrent carcinoma of ear of large size and probably penetrating through shell of brain. Microscopic and clinical diagnosis. 300 Ma. for 1½ hours, patient's weakness causing abandonment of application. Palliation. Patient still living at last accounts.

43. July, 1902. Mrs. C. Aged 39. Recurrent carcinoma of cervix and posterior wall of vagina, following two operative removals within four months. Microscopic and Clinical. 350 to 500 Ma. within four months. Microscopic and clinical diagnosis. 350 to 500 Ma. with single zinc-point for 1¾ hours. Great local improvement. Purulent discharge continued from eroded surface. X-Rays were subsequently used without effect. Subsequent history unknown.

44. August 1902. Mr. T. Aged 44. Primary circular carcinoma of upper rectum, with almost complete stenosis. Patient has lost 26 lbs. weight in six weeks. Microscopical and clinical diagnosis. 500 Ma. for 69 minutes with zinc-mercury points and cooling currents of water. Complete eradication. Examination after healing of parts showed healthy constriction at site of cancer. The patient's general condition was poor at last accounts, without local return.

45. September, 1902. Mrs. S. Aged 52. Carcinoma of cervix of six months' known standing. Uterus eroded to a shell and fixed by regional extension to broad ligaments. Clinical diagnosis 450 to 510 Ma. with zinc-mercury points and cooling current of water; duration 52 minutes. Temporary palliation. Pain and hemorrhage returned three months later.

46. October, 1902. Mrs. S. Aged 57. Primary carcinoma of right breast with infected gland in axilla, both movable on chest wall; general condition poor. Microscopic (Phila. Clin. Lab.) and clinical diagnosis. 600 to 720 Ma. with zinc-mercury points for 1½ hours. Complete eradication with saving of portion of breast. Complete cure. Patient writes ten months later that her general health is better than for years.

47. January, 1903. Mrs. P. Aged 52. Recurrent colloid carcinoma of lower rectum, following operative removal six months before. Large area affected around the anus and to a point three inches above it, together with vulva and vagina. Microscopic and clinical diagnosis. 500 to 1000 Ma. zinc-mercury points, for one

hour, January 25. Second application, February 22, 400 to 500 Ma. zinc-mercury, for 35 minutes. Apparent eradication. Restoration of function. Patient remains well at last accounts. X-Rays used for a time.

TABULATED LIST OF CASES OF SARCOMA.

Consecutively Treated by the Massey Treatment.

1. August, 1894. Mr. C. Aged 38. Sarcoma of soft and hard palate, size of goose egg, projecting into fauces and threatening suffocation. Clinical diagnosis. Confirmed at Hospital Univ. Pa. Daily applications of blunt zinc-mercury electrode with 35 Ma. for 15 minutes for six weeks. Treatment resumed for some time one year later. Complete eradication. Cure. Patient is well nine years after.

2. March, 1896. Mrs. H. Age 36. Recurrent sarcoma of right pectoral muscles following removal of breast two years before. Clinical diagnosis. Daily applications of sharp pointed zinc-mercury electrode with 50 to 100 Ma. under cocain. Discharge of central lump after six weeks. Shortly after patient returned home, improved, metastasis of brain developed with fatal results. Better results would probably have followed more thorough applications.

3. August, 1897. Mr. C. Aged 64. Hypertrophy of tongue of probably malignant nature. Clinical diagnosis. 350 Ma. zinc-mercury for 23 minutes. Temporary palliation. The swelling was greatly reduced for a time, but ultimately recurred, causing death about one year later. Better results would probably have followed more thorough application.

4. October, 1897. Mr. O. Age 48. Spindle celled sarcoma of upper maxilla, displacing three teeth by protrusion into mouth and causing protrusion of the molar process and of arch of hard palate. Microscopic diagnosis. 300 Ma. with galv. mercury electrode for 1¼ hours, followed by three month's daily applications of 35 Ma. zinc-mercury points. Complete final eradication. Complete cure with recession of bony walls of anstrum into place. Patient well at end of six years.

5. December, 1897. Dr. D. Aged 52. Immense small-celled sarcoma of upper maxilla, with invasion of orbit and nasal cavities. Microscopic and clinical diagnosis. 600 Ma. gold-mercury for 15 minutes. Patient too weak to continue application. No benefit. The disease progressed without cessation and patient died shortly after application.

6. March, 1898. Mr. O. Aged 43. Recurrent myxo-sarcoma of region of appendix with extensive infiltration of iliac region, following two operations in previous year. Clinical diagnosis. Daily application of 75 to 100 Ma. under cocain, for 6 months. Temporary benefit marked. Patient was compelled by circumstances to stop treatment. The disease still exists at last accounts received.

January 7, 1899. Mr. R. Aged 60. Recurrent sarcoma at inner canthus of left eye, following operative removal three months before. Disease extends into sphenoid bone antrum. Microscopical and clinical diagnosis. 500 Ma. with zinc mercury points for 40 minutes, Jan. 27th. Second application, April 16, 400 to 540 for 50 minutes. Nearly complete eradication after each application. The attending physician considers that the patient's life was prolonged 3 months by the application. Duration too short at both applications, the battery breaking down at second.

March 8, 1899. Mr. D. Aged 79. Immense recurrent sarcoma of the neck following fine knife operation. Clinical diagnosis. 1,000, decreasing to 200 Ma. for 1 hour. Battery proving insufficient, zinc mercury points. Partial destruction followed by secondary hemorrhage causing death six days later. The line of demarcation formed in diseased tissue practically aneurismal.

August 9, 1899. Charlie H. Aged 5 years. Immense equilateral sarcoma of orbit, recurrent after removal of eye nine months before. Clinical diagnosis. 1,200 Ma. bipolar at outermost portion of tumor. Death during application. Postmortem examination recorded direct extension of tumor into brain.

May 10, 1901. Mr. W. Aged 47. Recurrent sarcoma of both groins, following removal of left testicle for sarcoma 10 months before. Microscopic and clinical diagnosis. 800 to 1400 Ma. for 3 hour with zinc-mercury points May 12. Second application to opposite side, June 12th, 1400 Ma. for 3 hours. Death seven days after application by secondary hemorrhage. The line of demarcation formed in highly vascular tissue.

May 11. Mr. M. Aged 45. Immense recurrent sarcoma of palate extending through angle of jaw to neck, following recent knife operation. Microscopic and Clinical. 200 to 300 Ma. to inner growth only to relieve suffocation. Temporary relief followed by death five hours later.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Christmas.

“Frame your mind to mirth and merriment,
Which bars a thousand harms, and lengthens life.”

“*Taming of the Shrew.*”

Not many years gone, a poet of no mean caliber, moralizing on the spheres of life, their modes and rules of ethics and of conduct, invites those who have been humbled by untiring Fate to tread a measure of complaint: The times have changed: the spirits of the myth and demigod have vanished; the wood sprite, ocean elf and ethereal forms have passed into the realms of a forgotten song. For these, the poet and his fraternity, there survive but the ocean, air, fire and earth, with space pervading all, a knowledge of a coming and a prescience of a going, Somewhere or Nowhere.

Every Christmastide harks back to the tender sentiments; again and unconsciously the crystallization of hope finds a place in the heart and head of all. Even the poet must have felt the gentle influences of the child faith, with a trust in the St. Nicholas of their calendar, who, after all, for most children does exist in fact.

Whenever the atmosphere of the holiday season approaches, we grow reflective and wonder at the reasons for the pagan celebration of a Christian event. Every year the answer comes to the same reach, that hope and garlands go together; that the raytimes carry sunshine and that the morbid only shadows the true—

—“the streams

Of yesterday and to-morrow take their way,
One to the land of promise and of light,
One to the land of darkness and of dreams.”

New Orleans is happy in its Latinity and most beautifully, for that reason, meets each of the festal days with a glad cry and a responsive celebration, which tones the temperament of a twentieth

century community, until there comes the glint, here and there, of the middle ages.

The many voices and the blasts of horns along the main thoroughfares, with passing jests of a happy crowd, all carry memories of the days of *Merry Andrews* and of the Yule tide.

We of the serious guild must have time to think of these things and to take part in them, for we may not join the band of that same poet, who cried aloud at the materialism of the day, lived out of touch with the spirit of things, which have survived the old faiths and who could only drift along, a derelict in the great ocean of Time; helping no one, and waiting for the great dissolution of all things.

“ Let the great winds their worst and wildest blow,
Or the gold weather round us mellow slow,
We have fulfilled ourselves, and we can dare
And we can conquer, though we may not share,
In the rich quiet of the afterglow,
What is to come.”

Abstracts, Extracts and Miscellany.

Department of General Surgery.

In charge of DR. F. W. PARHAM, assisted by DR. F. LARUE, New Orleans.

X-RAY TREATMENT OF CANCER OF THE STOMACH.—Mr. M. A. Robin, in *Journal de Médecine & Chirurgie* for July 10, 1903, reports to the Paris Academy of Medicine, from an article by Le-Moine & Doumer of Lille, a case of cancer of the stomach successfully treated by the X-Rays.

The presence of a tumor, hematemesis, vomiting and the cachexia gave an almost positive stamp to the diagnosis.

After seven exposures to the rays the tumor disappeared and the other symptoms equally subsided.

Although for the past four months no treatment whatever has been given the patient remains cured both as to her local and general condition. LeMoine & Doumer have subsequently treated two other malignant cases of the stomach with similar beneficial results.

On the other hand, they have failed with several other cases.

Mr. Robin is reserved as to the diagnosis, there being always a possibility of error; he nevertheless strongly favors experimenting with the rays. Mr. Cornil (in the discussion) reported for Mr. Romain Vigouroux the case of a cancer of the breast which had existed for eight years. The growth completely disappeared after quite a number of sittings to the rays.

ABDOMINAL TRAUMATISM, SUBCUTANEOUS RUPTURE OF THE SPLEEN; SPLENECTOMY; RECOVERY.—Mr. Albert Mouchet, chief of clinic, to Mr. LeDentu (*Journ. d. Méd. et Chir.*, July 10, 1903), reported to the Academy of Medicine the case of a man, violently kicked in the abdomen who showed signs of internal hemorrhage 10 hours after the accident.

Laparotomy was performed. The spleen presented several fissures from which considerable bleeding took place. Spleen removed.

The patient recovered rapidly enough and was actually, three months after the operation, apparently in good health.

The number of cases of splenectomy recovered is still very small in France. This is the seventh case published as cured. The previous six successful cases are attributed to Paul Delbet, Hartman, Auvraz, Mauclaire, Judet, Coville.

The extirpation of the organ was done in each case for a subcutaneous rupture of the spleen, excepting Hartman's case, operated on for a gunshot wound.

Statistics of this operation are yearly improving, as patients are operated on earlier after the accident and with a more systematic technic.

THE REPORT OF THE SPECIAL CHLOROFORM COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION, AND THE DOSAGE OF CHLOROFORM.—This Committee was appointed in July, 1901, "in view of the very regrettable number of cases in which chloroform administration

terminated fatally." The importance of the subject justifies something more than a passing reference to the work of this committee which was composed of some of the best men in Great Britain. The ultimate object of the Committee's investigation was to determine the minimum dose of chloroform that would secure adequate anesthesia without endangering life. It was first necessary to ascertain with exactitude certain data, and these it has been the aim of the Committee to obtain. The importance of learning how much chloroform passed into the body, what proportion became stored in the tissues and what came away in expiration and whether any of the tissues exercised a selective power of appropriating and retaining the drug, were points all recognized by the Committee and it made an endeavor to obtain reliable answers. The Committee investigated the question as to whether clinical methods in vogue of giving chloroform were trustworthy, and its conclusions were that the dosage could not be satisfactorily regulated by any of these methods. With the apparatus in use safety depended rather upon personal skill than upon scientific exactitude.

"There is," says Mr. Dudley Buxton, "no margin for such human frailties as fatigue, distraction of the attention, or want of appreciation of the many deviations from the normal process recognized as commonly occurring during the narcotization." He maintains that the bulk of those to whom the lives of human beings are committed during operations under chloroform do not acquire nor retain the nice perception required to estimate with accuracy by the "open" or other methods up to now in vogue the amount of the drug inhaled. The Committee as a result of its work insists upon as accurate dosage as possible. It became necessary then to devise apparatus that would give a fair approach to accuracy in estimating the amount of chloroform taken in by a patient. The dosage does not refer to the actual amount but to the percentage of admixture with air. Even a very small quantity will kill if concentrated while comparatively large amounts will be safe if sufficiently diluted. By means of an apparatus devised by Mr. A. Vernon Harcourt it seems possible to effect this object and the Committee gives it as its opinion that chloroform will be found to be necessary. The experiments seem to show also that the amount necessary to maintain anesthesia is materially less than that required to effect it.

When breathing goes on regularly and the percentage of air saturated with the drug is uniform we have Prof. Sherrington's uniform circulating fluid, but when expiration is obstructed or the percentage of air saturation with chloroform is increased, then we have increase of chloroform tension in the blood and the cardiac muscle is exposed to those more concentrated solutions which Sherrington's experiments show paralyzed first the ventricle and then the auricle. The experiments demonstrate then that it is the dose, that is, the tension of chloroform in the blood circulating through the cardiac vessels, that is important and not so much the length of time during which it circulates nor the total amount inhaled. The practical deduction from this would be that the smallest percentage of chloroform sufficient to effect and to maintain the necessary anesthesia should be administered, but to do this different and more exact apparatus from those now at our disposal must be furnished. The one designed and used in the experiments by Mr. Harcourt seems to be constructed on correct principles, but the resources of mechanical ingenuity will, it is hoped, evolve an apparatus so simple and practicable as to make it available at the operating table. A criticism of Mr. Lawrie's found in the issue of Aug. 1 of the *British Medical Journal* is not unreasonable, that a cumbersome apparatus, however accurate it may be in delivering a certain percentage of air-chloroform mixture, may be in itself a source of danger by distracting the attention of the anesthetist from the patient himself in order to keep the apparatus working properly. Here, is suggested a very important consideration, the necessity of looking to it that the respiration is as far as possible maintained at a uniform rhythm. So that, after all, we may say that personal skill ought never to be subordinated to scientific accuracy. But whatever claim we may make for the necessity of personal skill we can not but admit that the labors of this Committee in attempting to determine a means of estimating and regulating accurately the proper dosage of chloroform, is of great value and we sincerely hope and believe with the *British Medical Journal* that the practical chloroformist may eventually "feel that he is using a drug whose properties he knows, and that a method may be found whereby he can regulate to the requirements of the case the strength of the anesthetic. With a definite decision

upon dosage, with an assured belief that the danger of chloroform is practically the danger of giving an overdose, with a decisive mandate that all inhalers must supply only definite percentages, much is achieved, and if to this be added the conclusions arrived at by Professor Sherrington, it will be seen that very much has already been done and that there is good reason to expect that much more will in the near future be carried out."

Department of General Medicine.

In charge of DR. E. M. DUPAQUIER, New Orleans.

MALARIA.—Moore and Allison have made a comparative study of the value of methylen blue and quinin in the treatment of malarial fever. As the cases were admitted to the wards, one was treated with methylen blue and the next was given quinin, no notice being taken of the type of fever, the diagnosis being based upon the microscopical examination of the blood, and the treatment not being begun until the parasites were found. Twenty cases were thus studied, ten being treated with each drug. Pure medicinal methylen blue must be used, not methyl blue, which is stated to give rise to toxic effects. To distinguish between the two a solution of caustic soda may be employed. With methylen blue this gives a deep-violet color, with methyl blue a purplish red. Full doses of each drug were administered, 15-40 grains of quinin daily and 20 grains of methylen blue, the latter divided into four doses of five grains each, and with each dose two grains of powdered nutmeg being given to lessen the tendency to strangury.

Of the ten cases treated with methylen blue eight were of the estivo-autumnal, and two of the double tertian, type. Of the "quinin" cases seven were estivo-autumnal and three tertian. The average duration of illness in the "methylen blue" cases was six and a half days after treatment was commenced, and in three this drug failed to cure. The average duration of illness in the "quinin" cases was five and eight-tenths days after treatment

was commenced; all were cured, and, in addition, quinin also cured the three cases that failed to react to methylen blue. In three of the cases the methylen blue produced some scalding and pain on micturation. The authors give the following as their conclusions:

“1. Methylen blue will destroy malarial parasites in many cases, but is less certain than quinin.

2. Methylen blue is probably most valuable in chronic cases, but has no advantage over quinin.

3. The effects of methylen blue are ordinarily more unpleasant than quinin.

4. It is useful in cases that can not take quinin on account of some idiosyncrasy towards it. Its use in cases of pregnancy is undetermined.

5. It is probably valuable in treating hematuric and hemoglobinuric fevers on account of its diuretic action; this has yet to be determined. We have had no chance to test its use in such cases.

6. We believe that quinin is quicker and much more certain, and would rely upon it rather than upon methylen blue.”

ARRHENAL, the new cacodylate preparation of arsenic introduced by Gautier for the treatment of malaria, has not been found to be of any service by Manson, who has treated without benefit two cases which at once yielded to quinin. Fraser has also expressed the opinion that the cacodylates are of little value. Cachez of Algiers has likewise failed with arrhenal. He gives details and charts of five cases of malaria treated with this drug in doses of 0.05 to 0.2 centigrams per diem without the slightest influence upon the course of the fever—the same cases yielded at once to quinin.

HEMOGLOBINURIC FEVERS OF GREECE.—A good review of this subject is published by Cardamatis showing that there are probably several varieties of this condition due to different etiological causes.

BLACKWATER FEVER.—Sir William Macgregor states that the most successful treatment known to him for this condition is the subcutaneous injection of saline solution, 7 grams of sea-salt to 1,000 of water; 100 to 300 c. c., are injected subcutaneously daily and four to six enemata of 200 c. c., may also be given daily.

“A POT OF BASIL.”—Under this title Shipley draws attention to the properties possessed by the *Ocimum viride*, a labiate plant nearly related to basil. He states that in Northern Nigeria the natives employ it to protect themselves from the attacks of mosquitoes; and that Captain Larymore had informed him that a single plant in a room undoubtedly drove the mosquitoes out, and that by placing three or four of the plants around his bed at night he was able to sleep unmolested without the use of a mosquito-net. With reference to this, Captain James says that “in India the shrubby basil (*Ocimum gratissimum*) is reputed to have the same attributes, and that although it is doubtful whether the popular belief that this tree keeps off mosquitoes and fever, has any foundation, in fact the leaves when dried and burnt are certainly a very effective means by which mosquitoes may be killed, and are far superior to the burning of sulphur for this purpose.” (*Tropical Diseases; a Review of Recent Works*. By R. TANNER HEWLETT, M. D., M. R. C. P., D. P. H.—*The Practitioner*, Aug., 1903.)

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, assisted by DR. C. J. MILLER, New Orleans.

A NEW SUGGESTION FOR THE RELIEF AND CURE OF CYSTOCELE.—A resumé of a paper on this subject by Dr. J. Riddle Goffe is published in *American Gynecology*, June, 1903.

The cause of the failure of the older operations is pointed out. This operation is based upon the fascia being the sustaining tissue and if there was a pocket, or a hernia produced in it by over distention until it had lost its power of recovery, the only permanent relief consisted in cutting out the over distention and atrophied area of the fascia and bringing into opposition the strong, well nourished areas that had resisted, or that had not been subjected to the destructive pressure. Or, as in the Bassini operation, the two layers of the distended fascia by being lapped upon each other and firmly stitched may serve to do the duty of the ordinary single layer of healthy tissue. But even when this had been done in the treatment of a cystocele and the hernia cured, there still remained

the unfortunate condition that the base of the bladder was thrown into wrinkles and folds, producing pockets in which urine accumulated, underwent decomposition, and brought on an unfortunate train of symptoms. Some way, then, must be devised for smoothing out the base of the bladder and doing away with the redundant tissue of the bladder wall produced by diminishing the size of the fascia. This redundant tissue was not from side to side, but also antero-posteriorly. There was no way of spreading out this tissue anteriorly, but the face of the uterus and broad ligaments afforded ample space and strong support over which the excess of the bladder wall could be spread, stitching up the middle point well on the face of the uterus and carrying the corners of the bladder well out to the right and left on the face of the broad ligament. The anterior vaginal incision offered every opportunity for accomplishing all these procedures. In making this incision it should extend, not only through the vaginal mucous membrane, but also through the sheath of the vagina, which was the supporting fascia in this region; the bladder was dissected from the interior of this fascia to the extent of an inch and one-half, or more, on either side of the median line. The principle of the operation was *support from above*. The bladder was carried up and suspended from the uterus and broad ligaments.

It is necessary to classify cases according to the etiology. In virgins and nulliparous women, as a rule, the uterus, *i. e.*, its fundus remained in place. There was hypertrophy of the supravaginal portion of the cervix which must be cut away, and the attachments of the upper end of the vagina, as well as the utero-vesical attachments shifted to a higher level. But the uterus and broad ligaments could be made to afford supporting power and the procedure then would consist in dissecting the vagina from the uterus throughout the entire circumference, incising the vagina along the anterior surface to afford room, amputating the cervix at a point indicated to remove hypertrophied tissue; then the bladder was rotated upon its transverse diameter, the base being stitched up on the anterior face of the uterus and broad ligaments at a point sufficiently high to take up all the slack.

The most common forms of cystocele, however, were found in multiparas, and in such cases, the disease was associated almost

uniformly with descensus and retrodisplacement of the uterus. In such cases it was necessary before attaching the cystocele, to restore the uterus to its normal position; it should have sufficient support not only to maintain that position for itself, but also to support the bladder in its new position; the higher attachment of the bladder operating reciprocally in both lifting the bladder to a higher level and maintaining the uterus in a normal anteverted position. After the bladder had been slid out on the anterior face of the broad ligament and fastened there, all the overstretched sheath of the vagina must be cut away on the longitudinal incision and the new edges of the fascia and mucous membrane stitched with interrupted sutures. This procedure was applicable to all cases of this class in which the condition was not so extreme as to rob the connective tissue of its recuperative power.

Department of Therapeutics.

In charge of DR. J. A. STORCK, New Orleans.

RADIUM AND CARCINOMA.—The close interrelations between the sciences and the immediate practical results from a seemingly insignificant and remote discovery have often been illustrated in modern times, but never so dramatically as in the case of radium. It is said that the entire amount of the pure element that has been extracted by chemists is less than a teaspoonful. But in a year a study of the minute properties of these few grains has apparently revolutionized physics and chemistry, almost if not absolutely abolished, at least theoretically, the atomic theory of matter, which with gravitation seemed the most certain of truths. Where it will end no one can foresee. One wonders if the greatest mystery of physics, gravitation, is soon to be explained. Immediately that radium is studied, a medical use is found. From Vienna comes the report that in the clinic of Professor Gussenbauer there has been one cure of chronic carcinoma. The patient who was 61 years old, says the cable newspaper report, had long suffered from cancer

of the palate and lip, and had repeatedly been operated upon fruitlessly, until the autumn of 1902, when the physicians of the Vienna Hospital declared it was absolutely useless to operate again. One physician determined, as a last resort, to try radium rays, and treated the afflicted parts by exposing them to the light of radium bromid, the strongest radium preparation in existence. He was rewarded by a gradual and complete disappearance of the tumors. Physicians at the same meeting reported that radium rays had cured a case of melanosarcoma and several cases of red mole.—*American Medicine.*

PASTEURIZED AND STERILIZED MILK AS A CAUSE OF RICKETS AND SCURVY.—To the *Medical Record* of December 27, 1902, Sill contributes a valuable practical paper on this most important subject, and takes excellent ground in urging the proper use of cow's milk:

“An infant food must take the place of and simulate mother's milk to be an ideal food, and in order to do this it must be of animal origin; it must not be heated above blood heat, as a temperature much above that disorganizes the albuminoids and the mineral constituents; it must contain all the ingredients of mother's milk in the same proportions; it must contain no ingredients not found in mother's milk.

“Uncontaminated milk is necessary, we admit, for successful infant feeding, but contaminated milk, no matter how carefully modified and pasteurized, will cause disordered digestion and improper assimilation in the young child.”

Sterilization of pasteurization of milk, makes it dead, preserved food, Mother's milk on the contrary, is a live, fresh food. Winters says: “I have seen scurvy where pasteurized, modified milk had been the only food. Recovery was rapid with the continued use of the same food raw.” Again he says: “Fresh, pure milk is not improved by pasteurization; it is not more digestible, and it is no way a better food for an infant.”

Sterilized or pasteurized milk is to the infant what canned or salt food is to the sailor.

In conclusion the author states that “cow's milk is generally acknowledged to be the best substitute for mother's milk, when properly prepared, but cow's milk is not bettered by sterilization

or pasteurization; on the contrary, this treatment undoubtedly makes it the direct cause of rickets and scurvy and kindred diseases in children."—*The Therapeutic Gazette*.

Department of the Ear, Nose and Throat.

In charge of A. W. DEROALDES, M. D., and GORDON KING, D. M.,
New Orleans.

INSTANT LOSS OF VISION IN THE RIGHT EYE FOLLOWING PARAFFIN INJECTION FOR NASAL DEFORMITY.—This interesting but unfortunate case is reported by Dr. L. M. Hurd, of New York, and demonstrates the fact that while the use of paraffin as a subcutaneous injection is a most important advance in plastic surgery, it is not devoid of serious risk.

The patient was a man of thirty-two years of age who was being subjected to paraffin injections for the correction of a nasal deformity.

Two previous injections had already been made with no bad result, and some months later was given another, the paraffin being injected an inch above the tip of the nose. Immediately afterwards the patient complained that he could not see with the right eye, and examination of that organ revealed a condition typical of embolism of the central artery of the retina. Manipulation and the administration of digitalis and nitroglycerin was tried but without relief.

The preparation used for the injection was a mixture of paraffin and petroleum jelly, and it is supposed that a globule of the latter found its way into the arterial circulation and lodged in the retinal artery. To do this it must have passed through the heart and lungs.—*Proceedings of the N. Y. Academy of Medicine, May 27, 1903.*

A FOREIGN BODY IN THE LUNGS THIRTEEN MONTHS.—Dr. Carnegie Dickson records the case of a man who had twelve carious teeth removed in two sittings under gas. About one month later developed an attack supposedly of influenza with aphonia, and two

months later an attack of pleuritis. This was followed by cough, expectoration and hemoptysis, and it was thought that tuberculosis had developed. This condition continued about ten months longer when finally he coughed up what proved to be a root of a molar tooth which had been inhaled into the lungs inadvertently at the time the teeth were extracted.—*Lancet*, Feb. 28, 1903.

EXPERIMENTS ON THE NATURE AND SPECIFIC TREATMENT OF HAY-FEVER.—Sir Felix Semon, of London, has recently been carrying on a series of experiments with the toxin and antitoxin of hay-fever, which Professor Dunbar of Hamburg claims to have discovered. The toxin is a substance obtained from the pollen of certain grasses, and when this substance is applied to the mucosa of certain regions in persons predisposed to hay-fever produced the characteristic attacks of the disease. The antitoxin is obtained by injecting the pollen of certain grasses into the circulation of an animal, and this antitoxin when injected into a person suffering from hay-fever immediately gave relief to the distressing symptoms.

The result of Semon's experiments to test the value of these preparations are summed up as follows:

1. There can be no doubt that Prof. Dunbar has succeeded in extracting from the pollen of certain grasses a toxin, which when instilled into the eyes or nostrils of people predisposed to hay-fever, produces in these parts the characteristic subjective and objective symptoms of the disease.

2. The toxin when injected into the eyes and nostrils of people not predisposed produced in the great majority of cases no symptoms whatever, but it certainly appears from Dr. T.'s and my own experiments as if there were instances of transition, in which, although the persons experimented upon never suffer from typical hay-fever, they are yet more susceptible to the influence of the toxin than the ordinary run of people.

3. The effects of the toxin in people suffering from hay-fever are as variable in intensity as are the attacks of the affection itself, both with regard to the local and the constitutional symptoms.

4. Professor's antitoxin certainly produced immediate disappearance of the subjective, and after a few minutes great amelioration of the objective, symptoms.

5. The mixture in equal parts of a toxic solution (1-500) and the antitoxin serum suffices to neutralize the specific effects of the toxin.

6. The effects of the antitoxin appear in some instances to be sufficient to prevent a reappearance of the subjective symptoms, whilst in other instances repeated instillations of the antitoxin were required to produce ultimately the return to normal conditions.—*British Med. Journal*, March 28, 1903.

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary, 163 University Place,
New Orleans.

NEXT MEETING, LAFAYETTE, LA., MAY 3, 4, 5, 1904.

OFFICERS—President, Dr. J. M. Barrier, Delhi; 1st Vice President, Dr. L. G. LeBeuf New Orleans; 2nd Vice President, Dr. F. J. Mayer, Scott; 3rd Vice President Dr. Oscar Dowling, Shreveport; Secretary, Dr. Wm. M. Perkins, New Orleans Treasurer, Dr. M. H. McGuire, New Orleans.

COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St Charles St., New Orleans; S. L. Williams, Sec'y, 5th Cong. Dist., Oak Ridge; J. F. Buquoi, 1st Cong. Dist., Point-a-la-Hache; F. R. Tolson, 3d Cong. Dist., Lafayette; N. K. Vance, 4th Cong. Dist., Shreveport; C. M. Sitman, 6th Cong. Dist. Greensburg; C. A. Gardiner, 7th Cong. Dist., Bristol.

Chairman Committee on Arrangements, Dr. F. J. Mayer, Scott, La.

THE FUTURE OF THE STATE SOCIETY lies largely in the hands of the officers of the Parish Societies. Unless the Component parts are in a healthy condition, the vitality of the whole must suffer. Never before in the history of this State has the medical profession been so thoroughly and actively awake to their needs and their possibilities. The necessity of medical organization has been talked about by Louisiana physicians for over 20 years. We now have medical organization in 40 out of our 59 parishes. Of the other 19, organization is practically impossible in five or six, and the rest will be approached with in the next two months. Charters have been issued as fast as the necessary data and applications are filed, and the Society is being kept posted as to its own activity through the medium of its own special department of the JOURNAL. But the work has simply been begun. The quarterly

meetings of the Parish Societies must be well attended and must be so enjoyable that the succeeding meeting will be looked forward to with interest and pleasure. Each member of each society must contribute to this end, but upon the officers of each society lies the direct responsibility of planning and carrying out the detail. The social features must not be overlooked. It is not necessary for these to be elaborate, but they should be characterized by good fellowship and good will.

SUNDRY NEWS.

THE EAST FELICINIA PARISH MEDICAL SOCIETY, organized October 2 and chartered October 10, and the West Feliciana Parish Medical Society, organized October 3, held a joint meeting at Clinton, on November 4, and merged into the Feliciana Medical Society (East and West Feliciana). This Society was chartered November 10 and supersedes the two separate societies.

THE SECRETARIES OF COMPONENT SOCIETIES are hereby requested to notify the State Secretary at once whether or not they have received their charter. These charters are sent, as a rule, to the Councillor of the District for his signature, and should be remailed by him to the parish secretary.

APPLICATIONS FOR CHARTERS, accompanied by a list of officers and members and a copy of the Constitution and By-Laws, should be sent NOW to the State Secretary. No dues for 1903 will be collected from new members coming in now. Old members are reminded that their 1903 dues are \$5 and are payable direct to the State Treasurer, Dr. M. H. McGuire.

PHYSICIANS WHO ARE NOT REGISTERED are not eligible to membership in parish societies. Physicians in parishes where component societies have been chartered are hereby reminded that the only way to retain membership in the State Society is to join the parish society. Under our new constitution no man can remain in the State Society who does not belong to his parish society, provided there is one in his Parish.

DR. J. R. WALTER has resigned from the Vernon Parish Medical Society on account of removal from the State.

DR. W. M. LEDBETTER has been elected Superintendent of the Shreveport Charity Hospital.

THE SABINE PARISH MEDICAL SOCIETY announces the following program for its January meeting: "Pneumonia," by Dr. J. M. Middleton; discussion opened by Dr. W. P. Addison. "Typhoid Fever," by Dr. Lee Vines; discussion opened by Dr. J. M. Middleton. "Malarial Fever in Children," by Dr. J. C. Parrott; discussion opened by Dr. Lee Vines. "Endometritis and Its Complications," by Dr. L. H. Dillon; discussion opened by Dr. J. B. Parrott. "The Management of Labor," by Dr. W. P. Addison; discussion opened by Dr. G. M. Mott. "Appendicitis," by Dr. J. B. Parrott; discussion opened by Dr. D. H. Dillon.

DR. BARRIER'S TRIP was considerably interfered with by a severe attack of cellulitis of the finger and acute articular rheumatism. An incision of the offending member under chloroform finally gave him relief. The State Society is indebted to him for the most vigorous personal efforts in its behalf ever made by one of its officers.

COMPONENT SOCIETIES CHARTERED SINCE NOVEMBER PUBLICATION

ST. JAMES PARISH MEDICAL SOCIETY. Organized October 31, 1903. Chartered November 2, 1903. Charter members 14. President, P. C. Tircuit, St. Patrick; Vice President, Louis A. Gaudin, Convent; Secretary-Treasurer, Dr. J. F. Buquoi, Colomb. Following are also charter members: Drs. J. L. Deslattes, Paulina; J. E. Doussan; Oscar Gaudet, Paulina; Numa Himel, Welcome; S. J. Hymel, Logan; George H. Jones and P. H. Jones, Lutcher; E. M. Levert, St. Patrick; L. O. Waguespack, Logan; B. Winchester, Convent.

ST. JOHN-ST. CHARLES BI-PARISH MEDICAL SOCIETY.—Organized November 2, 1903. Chartered November 3. Charter members 10. President, Dr. L. T. Donaldson, Bonnet Carré; Vice President, Dr. N. C. Stevens, Alma; Secty.-Treas., N. V. Simon, Wallace. Following are also Charter members: Drs. L. D. Chauff, Lions; H. D. Cooper and E. P. Feucht, Laplace; J. P. Elmore, Edgard; S. Montegut, Laplace. Meets first Thursday in January, April, July and October.

FELICIANA MEDICAL SOCIETY (East and West Feliciana). Organized November 4, 1903. Chartered November 10, 1903. Charter members 14. President, — Wilson; Vice President, Dr. James Kil-

bourne, St. Francisville; Secretary-Treasurer, Dr. E. C. McKowen, Jackson. Following are also Charter members: Drs. A. Gayden, Norwood; A. R. Holcombe, Jackson; W. F. Hagaman, Norwood; Henry Johnson, Wilson; E. M. Hummel, Jackson; W. E. Kittredge, Jackson; E. L. Erwin, Clinton; A. F. Barrow, St. Francisville; W. H. Taylor, St. Francisville; J. M. Daniel, Star Hill; R. P. Jones, Clinton. Meets second Tuesday of January, April, July and October.

ASSUMPTION PARISH MEDICAL SOCIETY. Organized October 22, 1903. Chartered. Charter members 10. President, Dr. T. B. Pugh, Napoleonville; Vice President, Dr. A. A. Aucoin, Plattenville; Secretary-Treasurer, Dr. A. A. Landry, Paincourtville. Following are also Charter members: A. J. Himel, Napoleonville; Clifford Himel, Labadieville; H. A. LeBlanc, Paincourtville; E. T. Painchaud, Bellerose; Fulton Rogers; Henry C. Dansereau. Meets second Thursday of January, April, July and October.

LAFORCHE PARISH MEDICAL SOCIETY. Organized. Chartered November 9, 1903. Charter members 14. President, Dr. A. J. Meyer, Thibodeaux; Vice President, Dr. A. J. Price, Lockport; Secretary-Treasurer, Dr. S. A. Ayo, Thibodaux. Following are Charter members: P. J. Dansereau, Columbia; H. L. Ducrocq, Lafourche Crossing; J. H. Fleetwood, Thibodaux; J. B. C. Gazzo, Raceland; L. E. Meyer, Thibodaux; H. L. Smith, Thibodaux; Thomas Stark, Thibodaux; P. H. Tertreau, Larose; A. Theriot, Lockport. Meets first Wednesday of January, April, July and October.

TERREBONNE PARISH MEDICAL SOCIETY. Organized October 23, 1903. Chartered November 13, 1903. Charter members 12. President, Dr. R. E. McBride, Houma; Vice President, Dr. A. Delcourt, Sr., Houma; Secretary, Dr. A. Delcourt, Jr., Houma; Treasurer, Dr. F. Tircuit, Chauvin. Following are also Charter members: Drs. W. J. Brown, Gibson; L. E. H. Duffel, Claiborne; A. Duval, J. B. Duval, L. H. Jastremski, C. M. Menville, Houma; N. P. Knobloch, Gibson; Joseph A. Pujos, Schriever; P. E. Thibodaux, Montegut. Meets fifteenth of January, April, October and December.

POINTE COUPEE PARISH MEDICAL SOCIETY. Organized November 4, 1903. Chartered November 14, 1903. Charter members

16. President, Dr. A. Tircuit, Anchor; Vice President, R. McG. Carruth, New Roads. Following are also Charter members: Drs. S. C. Barrow, Red River Landing; M. O. Becnel, Palmetto; Ruffin C. Claiborne, New Roads; J. J. Delambre, Oscar; F. W. Gaulden, Lakeland; W. A. Kellogg, Innis; W. W. Matthews, Chenal; J. H. McCaleb, Merrick Bernard Mount, Smithland; E. H. Smith, Smithland; S. W. Turpin, Smithland; W. H. Wagley, Livonia; J. R. Williams. Meets first Wednesday of every month.

Orleans Parish Medical Society Notes.

[Edited by the Publication Committee, Dr. S. M. D. Clark, Chairman, Drs. Jules Lazard and N. F. Thiberge.]

We had at our last meeting forty-seven members and it is believed that when the average attendance for the year is computed a marked increase in attendance will be shown. At this meeting we were glad to see some of the older members present and it is hoped that in the near future we will see a general revival of interest among the senior members of the Society.

We have but one more scientific meeting before the end of the year. On December 12 the annual election of officers will take place.

The present administration will soon begin work on the annual reports, which will be submitted on January 9.

The fact that the Society is badly in need of new quarters is gradually being realized by the Society as a whole. A meeting of the Board of Directors has been called for the special purpose of looking into this great need and we believe that the time is not far distant when we will be domiciled in cleaner, quieter and more commodious quarters.

Medical News Items.

AT THE MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION which closed in Washington, October 30, the following officers were elected: President, Dr. Charles T. Finlay, Havana, Cuba;

First Vice President, J. R. Monjaras, Mexico; Second Vice President, Dr. William Woodward, Washington, D. C.

The Secretary, Dr. Charles O. Probst, of Columbus, O., and the Treasurer, Dr. Frank W. Wright, of New Haven, Conn., were re-elected. Havana, Cuba, was decided on as the next place of meeting. Resolutions were adopted urging Congress to re-establish the army canteen in the interest of the health of the men; also a resolution recommending that medical colleges make provision for the clinical instruction of students in the diagnosis of infectious diseases common in the United States.

AT THE LAST MEETING OF THE MISSISSIPPI MEDICAL BOARD 36 out of 55 applicants failed to pass.

DURING THE LAST YEAR 150 persons bitten by animals supposed to be rabid, were treated at the Pasteur Institute in Atlanta, Georgia, and only one case died.

DIED.—Dr. R. D. Murray, died at the Mercy Hospital, Laredo, Texas, November 22. His death was caused by injuries received in a runaway recently.

Dr. Murray was a native of Ohio, sixty-four years of age. He was a civil war veteran. For several years he held the chair of instruction in anatomy in a Cleveland, Ohio, medical college. He was the dean of the Marine Hospital service, having associated himself there in 1872. During this connection he was stationed in charge at Norfolk, Virginia, for some time, where he was well and favorably known. Dr. Murray has been a prominent figure at all points where yellow fever epidemics occurred during the past ten decades.

PERSONAL.—Dr. L. G. Wille, formerly of Gueydan, Louisiana, is now located at New Braunfels, Texas.

Dr. L. A. Murdock is now located at St. Joseph, La.

Dr. R. M. Penick has removed from Alexandria to Shreveport, La.

THE BOARD OF ADMINISTRATORS OF SHREVEPORT CHARITY HOSPITAL met October 30 and elected T. B. Chase president, vice Dr. R. A. Gray, resigned; M. Bernstein, a member of the board committee, vice J. H. Jordan, resigned; Dr. Oscar Dowling, specialist in the treatment of diseases of eye, ear, nose and throat, vice Dr. G. C. Chandler, resigned. All of the resignations

were due to the trouble recently in the board over the election of Dr. Ledbetter as assistant house surgeon, to succeed Dr. Callo-way, who resigned.

REFORMATION OF HOT SPRINGS.—The Interior Department at Washington has taken energetic action to abolish the nuisance and scandal of medical drummers at Hot Springs, Ark. It has prescribed a number of rules for the guidance of bath-house proprietors and physicians, one of which prescribes that “No bath house supplied with water from the Hot Springs Reservation shall permit any person to bathe therein who is under medical treatment, unless the applicant for baths presents satisfactory evidence that he, or she, is the patient of a physician duly registered in the office of the Superintendent of the Hot Springs Reservation as one qualified to prescribe the hot waters from the Hot Springs, and who is known not to engage in drumming for custom.” Another rule reads: “Physicians desiring to prescribe the hot waters of the Hot Springs, either internally or through the medium of baths, must first be registered at the office of the Superintendent of the Reservation. Registration will be accorded only to such physicians as are found, by the board of physicians designated by the Secretary of the Interior, to have proper professional qualifications and character, and who do not engage in drumming for custom. The solicitation of patronage, through the medium of drummers, by registered physicians is prohibited; failure to observe this requirement will be sufficient cause for cancellation or revocation of registration.”

The *Hot Springs Medical Journal* states that the Federal Board received the credentials of the physicians in the place some time ago, and sent a report of the results of the inspection of them to the Interior Department. This will undoubtedly result in the redemption of Hot Springs from the horde of advertising quacks who have for so long brought discredit on the place.

—*Medical Record*, November 14, 1903.

THE THIRTEENTH ANNUAL MEETING OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will be held at Cincinnati, O., October 11, 12, 13, 1904. Dr. B. Merrill Ricketts has been elected Chairman of the Committee of Arrangements.

AT A MEETING OF THE SHREVEPORT MEDICAL SOCIETY, held November 3, 1903, the following resolutions were adopted:

Resolved, That in order to bring the Shreveport Charity Hospital in harmony with the medical profession of Caddo Parish, a Board should be appointed who will be in sympathy with the medical profession.

In the appointment of the Judicial Officers of this Parish, the recommendations of the bar have been followed, with universal satisfaction, and we feel that the same policy will redound to the benefit of the Hospital, in medical affairs.

Resolved, That the same reasons that cause universal satisfaction in legal appointments, are equally applicable in medical ones.

Resolved further, That these resolutions be mailed to Judge N. C. Blanchard and General Leon Jastremski, asking each candidate, if in the event of his election, he will appoint a Board in harmony with the medical profession of Caddo Parish.

Resolved further, That a copy of these resolutions be sent to the NEW ORLEANS MEDICAL & SURGICAL JOURNAL and the daily press be asked to publish same.

Very respectfully,

A. S. REISOR, M. D.,
President.

F. S. FURMAN, M. D.,
Secretary.

THE THIRTEENTH ANNUAL MEETING OF THE WESTERN SURGICAL AND GYNECOLOGICAL ASSOCIATION will be held in Denver, Colo., December 28 and 29, 1903. An invitation is extended to the surgeons and gynecologists of the Great West to attend this meetings and take part in its deliberations.

THE SIXTEENTH SESSION OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION is to be held at the New Piedmont Hotel, Atlanta, Georgia, December 15, 16 and 17, 1903. Reduced rates on all railroads south of the Potomac and Ohio Rivers, on the certificate plan.

THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION will hold its Sixteenth Annual Meeting, May 30 to June 3, 1904, at the Planters Hotel, St. Louis, Missouri.

THE FOURTH ANNUAL MEETING OF THE AMERICAN ROENTGEN RAY SOCIETY is to be held at the University of Pennsylvania, Philadelphia, December 9 and 10, 1903.

MARRIED—Dr. F. S. Furman, of Shreveport, Louisiana, to Miss Sarah Chandler, daughter of Judge G. C. Chandler, of Johnson City, Tennessee, on November 4, 1903.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

Obstetrics, A Text Book for the Use of Students and Practitioners. By J. WHITREDDGE WILLIAMS. D. Appleton & Company, New York and London, 1903.

The first effort of Prof. Williams to present a text book on Obstetrics, the reviewer should devote more than passing notice to it. It bears evidence of careful reading, thought and investigation, here and there showing originality of theory and practice. The author may feel proud of his achievement, and the profession grateful.

The book opens with a short history of the study of the pelvis, from the time of Andreas Vesalius, in 1543. There is also a long chapter on the anatomy of the pelvic organs.

Contrary to different writers, he believes there is little or no destruction of the uterine mucosa during menstruation, this conclusion being based upon the "examination of several uteri removed during the menstrual period and numerous specimens obtained by curettage." He appears favorably inclined to Selenka's views as to the decidua reflexa; that this covering of impregnated ovule is not formed around it after it has entered the uterine cavity, but that the ovum has burrowed into the decidua vera, forming a capsule called *Decidua capsularis*. His opinion is strengthened by the specimen reported in 1899 by Peters, which shows an impregnated ovule embedded in the decidua vera. Several cases of tubal pregnancy he has seen appeared to confirm this.

On page 123, on Structure of Placenta, we find: "In most text-books, it is stated that the cord is derived from the allantois, and is covered by a sheath of amnion. The researches of his have definitely shown that such is not the case in man." Heisler does not agree.

In the application of forceps to occipito-posterior Scanzoni's double application is recommended, the author's experience being that it renders delivery as easy as in occipito-anterior.

Next to the study of mal-formed pelves, beginning from the time of Arantius (1530-89), follows its classification, frequency, diagnosis, etc. External and Internal Pelvimetry are discussed. He agrees with Goenner, who demonstrated the fallacy of attempting to diagnose a contracted pelvis by external pelvimetry alone. The author says that "particularly in colored women, had he estimated from external measurements alone, the figures would have shown a frequency of about 75 per cent., whereas internal pelvimetry showed only 18.8 per cent." This conclusion was long ago reached by the reviewer.

On the treatment of labor in contracted pelvis it is wisely stated that the application of forceps above the brim is extremely dangerous to mother and child. Neither does he believe (under such conditions) in podalic version nor in premature delivery (at 34th or 36th week). Preference is given to Cesarian section or craniotomy. With due reference to the author, the reviewer would rather take chances (except under extraordinary conditions) with premature delivery.

The relative value of Section and Symphyseotomy is ably discussed, the argument closing with the statement that he does not expect to perform symphyseotomy and that the present enthusiasm for it will eventually disappear.

The subject of the Physiology of Labor runs through several chapters. The text is remarkably intelligent and contains a number of fine original illustrations.

The author favors Beaudeloques's method of correcting mento-posterior positions.

Spinal analgesia is deprecated.

In the chapter on multiple pregnancy attention is called to the accident of lock-heads and its treatment. The reader will be astonished not to find mention of the Trendelenburg position for its rectification.

In Eclampsia, chloroform and comparatively large doses of morphin are recommended; when convulsions have once occurred, termination of the pregnancy or labor, as soon as is consistent with the safety of the patient. Where the cervix is hard and undilatable, Caesarian section is advised. As to bleeding in eclampsia it might be well to quote the author's words: "I have bled with excellent results a number of patients whose pulse was weak and thin." From this he concludes that this treatment is indicated "in all cases in which delivery of the child is not followed by a cessation of the convulsions." The use of pilocarpin is condemned.

Issue is taken with those who include infected air and sewer gas as agents causing Puerperal Infection.

In the doctors investigations of 150 cases of temperature at 101° F. and higher, occurring during the first ten days of the puerperium, there were found sixteen varieties of bacilli and bacteria in 125, and none whatever in 25. He seems to believe that typical *sapremia* is very rare. Vaginal examination at the termination of the third stage of labor, to discover a tear of the cervix, is wisely condemned. The advice against the routine use of the curette for infection is timely; so is that favoring the use of the intra-uterine douche of sterile water. But his recommendation almost at once to invade with the finger the uterine cavity of every case with a temperature of 101° F. appears, to say the least, a little too sweeping.

This work on obstetrics is one of the most instructive and comprehensive on the subject. Every section is followed by a fairly long bibliography. While it may appear to be too encyclopedic for the beginner, it is not so. The first course student pays little attention to this branch and when at the proper time he takes it up, he will be fairly well trained to appreciate the lessons contained in the book. All teachers would do well to give it careful consideration. It will certainly prove a most useful ally for every doctor interested in this department.

MICHINARD.

Robinson's Latin Grammar of Pharmacy and Medicine. 4th Edition with elaborate vocabularies thoroughly revised by HANNAH OLIVER, A. M. Published by P. Blakiston's Son & Co., Philadelphia, 1903.

This fourth edition is proof of the value and effectiveness of the work now before us. It will supply the needs of thousands of students who enter the study of Medicine and Pharmacy without having first studied Latin, thus being placed at a great disadvantage compared with those who have acquired a fair knowledge of that language. To unfold the principles of Latin grammar in a philosophical and at the same time practical way is no easy task. The author and his assistants have succeeded. The lessons are well conducted. The paradigms and suggestive

derivations are notable features. The reading lessons are also valuable. The vocabularies are elaborate. The indexes are reliable. We heartily commend this book, unique in its kind. E. M. D.

Publications Received.

W. B. Saunders & Co., Philadelphia, New York and London.

The American Pocket Medical Dictionary (Fourth Edition), by W. A. Newman Dorland, A. M., M. D.

A Text-Book upon the Pathogenic Bacteria (Fourth Edition), by Joseph McFarland, M. D.

A Text-Book of Pathology (Fourth Edition), by Alfred Stengel, M. D.

Nervous and Mental Diseases (Fourth Edition), by Archibald Church, M. D., and Frederick Peterson, M. D.

An American Illustrated Medical Dictionary (Third Edition), by W. A. Keen, M. D., and J. William White, M. D.

A Text-Book of Clinical Anatomy (First Edition), by Daniel N. Eisendrath, A. B., M. D.

An American Illustrated Medical Dictionary (Third Edition), by W. A. Newman Dorland, A. M., M. D.

A Text-Book of Obstetrics (Fourth Edition), by Barton Cooke Hirst, M. D.

Clinical Examination of the Urine and Urinary Diagnosis (Second Edition), by J. Bergen Ogden, M. D.

A Text-Book of Obstetrics (First Edition), by J. Clarence Webster, M. D.

A Text-Book of the Practice of Medicine (Sixth Edition), by James M. Anders, M. D.

A Text-Book of Operative Surgery (First Edition), by Warren Stone Bickham, Ph.D., M. D.

A Text-Book of Diseases of Women (First Edition), by Barton Cooke Hirst, M. D.

Atlas of the External Diseases of the Eye (Second Edition), by Prof. Dr. O. Haab.

The Four Epochs of Woman's Life (Second Edition), by Anna M. Galbraith, M. D.

A Manual of the Practice of Medicine (Sixth Edition), by A. A. Stevens, A. M., M. D.

Modern Surgery, General and Operative (Fifth Edition), by John Chalmers Da Costa, M. D.

Lea Bros. & Co., Philadelphia and New York, 1903.

The Medical Epitome Series, Edited by V. C. Pederson, A. M., M. D.;

Physics and Inorganic Chemistry, by Alexius McGlannan, M. D.;

Anatomy, by Henry E. Hale, A. M., M. D.

Clinical Pathology of the Blood (Second Edition), by James Ewing, A. M., M. D.

A Manual of Hygiene and Sanitation (Third Edition), by Seneca Egbert, A. M., M. D.

A Treatise on Orthopedic Surgery (Second Edition), by Royal Whitman, M. D.

P. Blakiston's Son & Co., Philadelphia, 1903.

Surgery, Its Theory and Practice (Eighth Edition), by William Johnson Walsham, F. R. C. S. Eng., M. B. and C. M. Aberd.

Text-Book of Diseases of the Eye (First Edition), by Howard F. Hansell, A. M., M. D. and William M. Sweet, M. D.

Lessons on the Eye (Third Edition), by Frank L. Henderson, M. D.

Practical Gynecology (Second Revised Edition), by E. E. Montgomery, M. D., L. L. D.

Quiz Compend—Gynecology (Third Edition), by William H. Wells, M. D.

J. B. Lippincott Company, Philadelphia, 1903.

International Clinics, Thirteenth Series, Vol. VIII, by Leading Members of the Medical Profession Throughout the World.

Miscellaneous.

Transactions of the American Pediatric Society (Fourteenth Session), Vol. XIV, edited by Walter Lester Carr, M. D.; Reprinted from the Archives of Pediatrics, 1902. E. B. Treat & Co., New York.

The Practical Medicine Series of Year Books, Vol. X, Skin and Venereal Diseases. Nervous and Mental Diseases, by W. L. Baum, M. D., and Hugh T. Patrick. The Year Book Publishers, Chicago, 1903.

Annual Report of the Supervising Surgeon-General for the Fiscal Year, 1900 and 1901. Washington. Government Printing Office.

Stories of a Country Doctor, by William P. King. The Clinic Publishing Co., 1902.

Transactions of the Medical Association of the State of Alabama, 1903.

Transactions of the American Otological Society, Thirty-Sixth Annual Meeting, Vol. VIII, Part 2. Mercury Publishing Co., Mass., 1903.

Plan of the Universal Exposition at St. Louis, 1904, Department of Liberal Arts.

Saunders Catalogue Medical and Surgical Books.

A Manual of Electro-Static Modes of Application, Therapeutics, Radiography and Radio-therapy (Second Edition), by William Benham Snow, M. D. A. L. Chatterton & Co., New York, 1903.

Spotted Fever (Tick Fever) of the Rocky Mountains, A New Disease, by John F. Anderson. Washington Printing Office.

Physician's Pocket Account Book, by J. J. Taylor, M. D. Published by the Medical Council, Philadelphia, Pa.

Reprints.

The Genesis of Epilepsy, Part I, by Louise G. Robinovitch.

Suburethral Abscess, or Incomplete Internal Urethral Fistula—Report of Three Cases, by C. Jeff Miller, New Orleans, La.

Subcutaneous Drainage in the Surgical Treatment of Hydrocephalus Internus—The Proper Perineal Prostatectomy Incision—A Scalp Face—A New Plastic Operation—Case of Splenomedullary Leukaemia Successfully Treated by the Use of the Roentgen Ray, by Nicholas Senn, M. D., of Chicago.

The Significance of the Temperature in the Diagnosis of Extra-Uterine Pregnancy During the Period of Collapse from Hemorrhage—A Study of the Degenerations and Complications of Fibroid Tumors of the Uterus from the Standpoint of the Treatment of these Growths, by Charles P. Noble, M. D., of Philadelphia.

Remarks upon Medical Instruction—A Plea for Greater Uniformity, by N. R. Coleman, M. D., of Columbus, Ohio.

Nauheim Methods in Chronic Heart Disease with American Adaptations, by Thomas E. Satterthwaite, M. D., of New York.

Colchicum in the Treatment of Gout, by Charles C. Ransom, M. D., of New York.

Aids to Cystoscopic Practice—The Boy's Venereal Peril, by Ferd. C. Valentine, M. D., of New York.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR OCTOBER, 1903.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	6	2	8
Intermittent Fever (Malarial Cachexia)	5	6	11
Small Pox.....			
Measles.....			
Scarlet Fever.....			
Whooping Cough.....	2		2
Diphtheria and Croup.....	3		3
Influenza.....			
Cholera Nostras.....		1	1
Pyemia and Septicemia.....	3	1	4
Tuberculosis.....	40	49	89
Cancer.....	18	6	24
Rheumatism and Gout.....	1	1	2
Diabetes.....			
Alcoholism.....	1	2	3
Encephalitis and Meningitis.....	3	2	5
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	13	3	16
Paralysis.....		1	1
Convulsions of Infants.....	2	3	5
Other Diseases of Infancy.....	9	2	11
Tetanus.....	3	11	14
Other Nervous Diseases.....			
Heart Diseases.....	27	20	47
Bronchitis.....	3	4	7
Pneumonia and Broncho Pneumonia.....	10	11	21
Other Respiratory Diseases.....	1	1	2
Ulcer of Stomach.....	2		2
Other Diseases of the Stomach.....	4	1	5
Diarrhea, Dysentery and Enteritis.....	17	6	23
Hernia, Intestinal Obstruction.....	2		2
Cirrhosis of Liver.....	9	6	15
Other Diseases of the Liver.....	6		6
Simple Peritonitis.....		1	1
Appendicitis.....	1		1
Bright's Disease.....	40	18	58
Other Genito-Urinary Diseases.....	3	1	4
Puerperal Diseases.....	2	2	4
Senile Debility.....	22	10	32
Suicide.....	2	2	4
Injuries.....	14	16	30
All Other Causes.....	26	13	39
TOTAL.....	301	202	503

Still-born Children—White, 20; colored, 17; total, 37.

Population of City (estimated)—White, 227,000; colored, 83,000; total, 310,000.

Death Rate per 1000 per annum for Month—White 15.91; colored, 29.20; total, 19.47.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.08
Mean temperature.....	70.
Total precipitation.....	0.81 inches.
Prevailing direction of wind, northeast	

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No. 7.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

The Teeth as a Factor in Digestive Diseases and Disorders.*

By J. A. STORCK, M. D., M. PH., Professor Diseases of the Digestive Apparatus,
N. O. Polyclinic, New Orleans.

It is held by some high in authority, that, as teething is a physiological process, no disturbance whatever (any more than in the natural growth of hair) should take place during the period of dentition, if the child be normal. We agree with the statement of Holt¹ that "the usual mistake made in practice is in overlooking serious diseases of the brain, kidneys, lungs, stomach, and intestines because of the firm belief that the child was only teething. The physician who starts out with the idea that in infancy, dentition may produce all symptoms, usually gets no further than this in his etiological investigations." However when the subject is weighed carefully, we must admit the fact that during dentition there seems to be a predisposition to some disorder of the stomach

* Read before the Louisiana State Medical Society, April, 1903.

and bowels; for among children appreciably healthy, we find a certain percentage suffering from such disturbances. These derangements are especially common to rachitic children, with whom a rise of temperature to 103° F. is often noticed. We see, therefore, that even at the onset the teeth may be a factor in the causation of digestive disorders.

The question arises why the teeth should produce disturbance at the time of eruption, and not cause any ill feeling from the time of their development about the seventh week of intra-uterine life up to the seventh month after the birth of the child? During that time, they are compelled to cut their way through the gums. Why, then, should the trouble be delayed till only the thin covering of the mucous membrane remains to be pierced?

Though delayed dentition is not always a sign of disease, yet it is frequently an evidence of rachitis or congenital syphilis. Again we see cases of premature eruption or natal teeth, as also some rare cases where no temporary or permanent teeth have erupted. In the event of the existence of such conditions it can be readily understood that digestive disorders are common, owing to the impossibility of proper mastication of food.

Edwin T. Darby² calls attention to the fact that, until recently, very little attention was paid to the preservation of temporary teeth, or to the correction of their deformities. Yet, every practitioner of experience can testify to cases of indigestion directly traceable to malformed or decayed teeth, as a result of neglected temporary teeth. Upon the examination of the mouths of 1,000 school children over twelve years of age, and 1,000 adult patients and friends, Dr. E. S. Talbot³ found that fifteen per cent. more deformities existed in adults than in children. In part explanation, he states "that as people grow older slight irregularities of the teeth may become sometimes more prominent, owing to movement and permanent arrangement of the teeth later in life." These statistics point the moral that deformities of the temporary teeth should be corrected.

When teeth are normally arranged, two parabolic curves are described, the upper and larger closing slightly over the lower. Such an arrangement of teeth in a well developed jaw is said to be regular. This regularity is more frequently present in the tem-

porary than in the permanent set. Deviations from regularity may be due to heredity or acquired influences. At times this difference may be very slight, or, it may be so considerable as to amount to actual deformity. In the condition called prognathous, produced by thumb-sucking, and also said to be due to lip-sucking, the teeth meet upon their cutting edges or those of the lower jaw close outside, instead of behind those of the upper jaw. As a result of this abnormality, there is improper mastication of food.

If deformities of the vault, palate and teeth are corrected in early childhood, much discomfiture may be avoided, and the patient saved from becoming a chronic dyspeptic. But, even though the correction is not made early, the patient need not entirely despair; for it is possible, even later in life, to correct the deformity. We remember with pleasure the excellent paper of our friend, Dr. William Ernest Walker,⁴ on Orthodontic Facial Orthomorphia, read before the Orleans Parish Medical Society in illustration of this point. Where malformations or malpositions exist; a careful inquiry should be instituted with possibility of syphilis, etc.

Deformity of the permanent teeth, when pronounced, has an important bearing on the health of the individual, as he is then eating food which requires more thorough mastication than that which constituted the diet in early years. Again, these teeth must last through one's natural life, unless one substitutes false teeth for them, but this should be a *dernier resort*.

Miller⁵ points out the fact that according to Nencki's analysis for bacteria that "a nutrient solution for bacteria should be composed of albumen, carbohydrates, and small quantities of salts; conclusion which has been completely confirmed by experience, which has taught that such solutions invariably form the best culture media." The juices and accumulations in the mouth at all times present such media.

The mouth bacteria proper are:

1. *Leptothrix innominata*; 2. *Bacillus buccalis maximus*;
3. *Leptothrix buccalis maxima*; 4. *Jodocovens vaginatus*; 5. *Spirillum sputigenum*;
6. *Spirochetæ dentium* (denticola).

As far as my information goes, twenty-two different kinds of bacteria have been isolated from the human mouth. The presence of mouth bacteria in ordinary amounts in the oral cavity cause no

disturbance whatever, but in the unclean mouth, where they are exceedingly numerous, they are prone to cause a loss of appetite, and in this way, interfere with the proper nutrition of the individual. Bacteria as a cause of dental caries may exist in teeth which are characterized by abnormalities, such as aberrations in form, size, and structure. Whenever the condition of the teeth is such as to favor the retention of food particles, particularly carbohydrate matter, the chemic changes due to the action of the bacteria on this matter, produce lactic acid, or other substances, which are capable of attacking the enamel. Malposition of the teeth also, by favoring the retention of food particles, and consequently facilitating bacterial growth and chemic changes, is liable to prove a cause of indigestion.

Injury to the enamel may result from the friction of masticating gritty substances, from the use of gritty tooth powder, or from the too vigorous use of hard tooth brushes. It is claimed by Buchard⁶ that the use of the hard tooth brush is most likely to produce abrasion not in the enamel, but about the necks of the teeth. The gum line recedes, and exposes the cementum, which is attacked. Any appliance in the mouth which might cause the enamel to be eroded should be carefully avoided. Owing to the silex contained in the leaves of tobacco, tobacco chewing acts as a means of abrasion. The biting of hard substances, cracking of nuts, etc., with the teeth should never be practiced, as any break in the continuity of the enamel acts as a starting point in dental caries, and dental caries is a potent factor in digestive disorders. Acid saliva favors dental caries and, as the saliva is sometimes acid in diabetes, in this condition dental caries runs a rapid course. The observations of Kirk, Darby, Buchard⁷, and Jack have shown that many people with erosions of the teeth are victims of gout, rheumatoid arthritis, or rheumatism, or that they give a family history of such. These conditions, together with gestation, as predisposing causes of decay should be carefully watched. As dental caries is a progressive condition, on the first evidence of it we should refer our patients to a competent dentist. Wherever possible, gold should be used for the filling material, as it withstands the stress of mastication, and is susceptible of a high polish. Where the teeth are not in correct position for the proper mastication of food, suitable bridge, or other

work, should be done. When from any cause, it has been found necessary to extract some, or a greater part, of the teeth, suitable false ones should be provided; but this should be the resort only where it is impossible to do bridge or other more hygienic work. If it be found necessary to use false teeth on plate or otherwise, care should be exercised that they fit properly, and that they be removed and cleansed systematically with some suitable antiseptic agent. The importance of proper mouth hygiene can not be too strongly emphasized. Miller⁸ states that he found twelve of the mouth bacteria in the feces, and eight in the stomach. He also makes mention of non-cultivable, and several cultivable mouth bacteria that proved fatal when injected into the mouse.

Biondi⁹ has given a valuable contribution to the study of pathogenic mouth bacteria. He mentions the following:

1. *Bacillus salivarius septicus*; 2. *Coccus salivarius septicus*;
3. *Micrococcus tetrangenus*; 4. *Streptococcus septo-pyemicus*; 5. *Staphylococcus salivarius pyogenes*.

It can be seen from a study of these and of the normal mouth bacteria that the oral cavity furnishes a suitable place for the propagation of bacteria; therefore we must constantly look to the proper cleanliness of the mouth and teeth. Care should be exercised in the antiseptic agent employed. Salicylic acid, for instance, is said to decalcify the teeth. Bichloride of mercury is unquestionably the best antiseptic agent, but owing to its poisonous properties, it is objectionable. Tooth soap combined with some antiseptic answers a good purpose, while prepared chalk made into a paste with hydrogen-dioxide is an ideal cleanser. Listerin, euthymol, and similar preparations are excellent mouth washes. A medium tooth brush should be used, at least twice daily, *i. e.*, on retiring, and on rising. Dental floss, and, if necessary, tooth picks should be used to remove particles of food from between the teeth. If the tongue is coated, scrape it with something smooth, as an ivory or bone paper cutter.

When the proper hygienic condition of the mouth was observed, I have seen cases of digestive disorders entirely relieved, whereas, medication had previously been used without result.

In conclusion, it should be borne in mind that, as Edwin T. Darby¹⁰ says: "Standing at the very portal of the mouth, and at

the beginning of the alimentary canal, the teeth are the chief agents in the mechanical part of the digestive function."

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The Prostate in the Cure of Gonorrhœa.

By A. NELKEN, M. D., New Orleans.

In the following paper I shall endeavor to show the responsibility of prostatic infection—frequently unsuspected—in persistent urethral discharge following gonorrhœal infection.

So good an authority as White and Martin¹ make the statement that the prostate is involved in only a small proportion of cases of gonorrhœa. And I believe I am not exaggerating when I say that the great majority of practitioners overlook entirely the possibility of prostatic disease as complicating urethritis unless their attention is called to the gland by sharply defined symptoms. Even then they are more likely to direct treatment to the posterior urethra, ascribing the symptoms to that rather than to the true seat of the trouble, the prostatic gland.

Wassildo (quoted by Valentine²) made evident the fact that 94% of gonorrhœas invade the prostate, and laid down the law that no gonorrhœic should be dismissed until rectal examination has shown the prostate and seminal vesicles free from disease.

Greene,³ in 214 unselected cases of gonorrhœa, found involvement of the prostate in 142 cases of 66%.

Fraser,⁴ after an extensive series of investigations, post-mortem and otherwise, thought the prostate to be involved in 90% of posterior urethral gonorrhœa. Frank⁵ in 210 cases of posterior urethritis, found the prostate infected 210 times.

A consideration of the anatomy of the prostate and prostatic urethra will show that it is unreasonable to suppose that infection can invade the latter and not involve the prostatic and ejaculatory ducts.

The prostate is composed of muscular and glandular tissue, the muscular element being continuous with that of the bladder. The glandular element consists of compound tubular glands with short ducts opening into the prostatic urethra. The urethra, about $1\frac{1}{4}$ inches in length, passes through the gland, usually at the upper end. On the floor of the urethra is the veru montanum, a slight elevation of erectile tissue. On either side of the veru montanum open the ejaculatory ducts and also the prostatic ducts coming from the right and left lobes of the prostate.

The function of the prostate is sexual. Its secretion, mixing with the seminal fluid, serves to increase the latter's bulk, and through its saline, alkaline character to maintain the viability of the spermatozoa. The contraction of the muscular element of the gland increases the force of ejaculation during coition.

Janet⁶ recognizes three classes of cases of chronic prostatitis:

(1) Non-infectious (properly, prostatorrhoea), (2) those due to gonococci, and (3) those due to other micro-organisms. The second class is the one in which we are most apt to find abscess formation and parenchymatous inflammation of the gland. The third class usually confines itself to the prostate follicles—follicular prostatitis—and it is this infection, chiefly that I mean to discuss.

Most authors give a train of symptoms, such as a feeling of weight in the perineum, frequent painful urination, retention of urine, etc., all or some of them as necessary concomitants of prostatic infection. My experience has convinced me that the prostate is frequently infected, either by the gonococci or some related organisms, without any symptoms pointing either to the gland or to the prostatic urethra.

Chetwood⁷ says: Chronic prostatitis may yield symptoms of so little note as to be entirely overlooked and disregarded. There is the case, reported by Pittman,⁸ in which prostatitis followed gonorrhoea, producing abscess, and terminating fatally, with entire absence of systemic or local symptoms.

In the majority of milder cases of prostatic disease, cures take place without any treatment directed to the prostate, nature being able to throw off the infection unassisted. But, on the other hand, we find cases relapsing again and again after apparent cure, as the infective germs escape from the prostatic ducts during intercourse, night emissions or even while straining at stool. The generally accepted idea that the newly cured gonorrhoeic is especially liable to contract the disease anew, is probably due to this fact.

An appreciation on the part of the surgeon of the part played by the prostate in persistent urethritis will save many a man from a cut meatus (and all the woes which that entails) in order to facilitate the passage of sounds for the cure of an imaginary stricture.

It is not my intention in this paper to discuss in detail the question of the relationship of the gonococci to chronic urethritis. I am not as yet prepared to accept the opinion of Lydston⁹ and Bastian¹⁰ that gonococci can develop in a septic vagina or urethra *de novo*, that is, from other organisms. The evolution of the species which Darwin describes as taking place through the slow changes of unnumbered centuries, these writers suggest as occurring in the case of pathogenic germs in short order, if only proper environment be present. Until we get more certain evidence of their contention, we are compelled to believe that every case of gonorrhoea has its origin in a previous one. But it is my opinion that after the epithelium of the urethra has undergone changes as a result of infection with the gonococcus, this germ may either lose much of its virulence as well as its microscopic appearance through changes in the soil on which it grows, or else it prepares the urethra for the growth of other pus-producing organisms resembling the gonococcus neither in appearance nor in staining qualities, and yet, which can produce inflammation in a healthy mucous membrane, although such inflammation is less violent than that due to the typical diplococcus of gonorrhoea.

This is the organism (or organisms) which is (or are) present in a large proportion of cases of chronic urethritis. Of this fact I have satisfied myself by numerous, carefully conducted microscopical examinations. And it is the infection of the prostate with these germs and not with the true gonococci, which accounts for the

mildness or even absence of symptoms which so often follow invasion of the prostatic follicles.

So much for etiology.

Massage of the gland is the essential point in the treatment of chronic follicular prostatitis. The objection is made that the method is painful to the patient and disagreeable to the operator. But, properly performed, the pain of massage is absent, or so trivial that it may be disregarded. And no physician should let the disagreeableness of an indicated method of treatment stand in the way of its performance.

The patient should first urinate in order to wash the urethra clear of any contained pus. For prostatic massage I prefer the dorsal position, knees partially flexed. The index, or middle finger, protected by a thin rubber cot, and well lubricated, is gently introduced into the rectum. At the first examination, the seminal vesicles are examined for evidence of disease. Very frequently, if they are healthy, the examining finger cannot make them out. But if any trouble is present, they are easily distinguished and if diseased must be included in the treatment. Fuller¹¹ claims that disease of the vesicles is more common by far, and, in its treatment, more important than is disease of the prostate. This opinion is not concurred in by the majority of genito-urinary specialists.

Having satisfied ourselves as to the condition of the vesicles, we now examine the prostate. One or both lobes may be enlarged and harder than normal. A localized boggy feeling usually denotes a small abscess cavity in the substance of the gland. In very chronic cases the gland may be hard and smaller than normal, due to the contraction of inflammatory tissue.

Not infrequently the examining finger makes out nothing abnormal, although the expressed contents of the gland contain pus.

With a gentle, yet firm, pressure the prostatic lobes are stroked from behind forward and from without inward. Undue force should be avoided, both because of the pain to the patient and because of the danger of setting up parenchymatous or periprostatic inflammation. Drawing the finger along the prostatic urethra will cause the prostatic fluid to gush from the meatus. The nature of the secretion can thus be observed and specimens obtained for microscopical examination.

Occasionally the secretion flows back into the bladder and is voided after irrigation in large gelatinous masses.

Massage may be continued for five to ten minutes, being governed chiefly by the condition present. In cases where the secretion is profuse and the inflammatory reaction following is slight or absent, it may be repeated every other day. Twice a week is sufficient in the average case.

Massage should always be followed by urethro-vesical irrigation with an antiseptic solution. Otherwise there is danger of urethral or bladder infection.

In the graver cases of prostatic disease, and such cases are nearly always complicated by seminal vesiculitis, the application of moist heat or alternately hot and cold water to the diseased area is highly commended. Heat used alone is generally preferable. Indeed some genito-urinary surgeons give first place to this method of treatment in prostatitis. Guiteras¹² advises a temperature of 120° F. through the rectal irrigator. Douching of the gland through the rectum is the method of choice and for this purpose numerous instruments have been devised. The objection to all that I have used has been that the inflow is always more rapid than the outflow, with consequent distention of the bowel.

The difficulty is obviated by the Goldenberg sound, which is a modified Arzberger hemorrhoidal apparatus, adapted to the prostate by giving it the appropriate curve. For this apparatus, which may be used with hot or cold water, Goldenberg¹³ claims the additional advantage that it can be employed to massage the prostate and seminal vesicles. Hot and cold applications may also be applied to the perineum, and while not so efficient as when directly on the gland through the rectum, have the advantage of convenience and are therefore more likely to be carried out by the patient.

Injections into the prostatic urethra of solutions of the silver salts (nitrate of silver, protargol, argyrol) with the deep urethral syringe, may also be of value, but is frequently disappointing. Blistering of the perineum has fallen into deserved neglect.

Sexual and physical rest is of great importance in all cases. Especially should patients be warned that unjustified sexual excitement is more harmful than actual intercourse—a fact which

the majority of men suffering with gonorrhoea do not seem to consider.

The three following cases are selected for reporting from a fairly large series, as being different types of follicular prostatitis (although some question might be raised as to the pathological condition present in the second case reported), and as serving to bring out in detail some of the points embodied in this paper.

CASE 1. Aged 19. Stock man in wholesale house. First attack of gonorrhoea following intercourse five days previous to consulting me. Discharge for eighteen hours. Pus contained gonococci.

Treated according to Janet. Improvement rapid. At the end of two weeks no discharge. Time between treatments gradually increased and treatment discontinued after four weeks.

Patient returned two days later with renewed discharge and some burning on urination. Examination of pus showed it to contain diplococci somewhat rounder than gonococci and not decolorized by Gram method. Patient was put through another course of irrigation lasting two weeks and, in addition, used astringent injections with hand syringe twice daily. Discharge ceased promptly, only to return with stoppage of treatment. Endoscopic examination showed anterior urethra normal. Nitrate of silver applications produced a discharge which was free from gonococci. I then made rectal examination. Vesicles and prostate were non-sensitive, apparently normal. Massage of prostate expelled large quantity of secretion, mixed with pus and epithelial debris. No gonococci.

No discharge from urethra after first massage. Irrigation was done every other day. Prostatic massage at first every fourth day, with increasing intervals. Treatment stopped after three weeks. Patient has been well for three months. This case is interesting as being an example of that class of cases of infection of the prostatic follicles with absence of clinical symptoms pointing to the prostate or prostatic urethra.

This condition I have found common in cases of gonorrhoea treated according to the suggestions of Janet. I do not mean to be understood as believing that the Janet method is responsible for posterior urethritis and the resulting involvement of the prostatic and ejaculatory ducts. On the contrary, I believe that it lessens to

some extent the liability of infection of the deep urethra. And its greatest value lies in the promptness with which it diminishes, and in a large proportion of cases altogether relieves, the painful symptoms which usually accompany gonorrhoea. And when the gonorrhoea involves the posterior urethra all the symptoms we are accustomed to look upon as classic—frequent painful urination, vesical tenesmus, heat and burning in perineum—are absent and we are therefore likely to fall into the error of supposing that the disease has not spread from the anterior canal.

CASE 2. Electrician, aged 28. First attack treated for three weeks by internal remedies before he came to me. History of severe onset with infection of the posterior urethra. Examination of pus showed gonococci in large numbers. Shortly after I began treatment by irrigation he developed abscess of the prostate, induced, possibly, by the use of strong injections (1-3000 permanganate) where there was already an inflamed prostate.

He was finally forced to go to bed and urine had to be drawn with catheter, as there was complete retention. Three days later abscess ruptured into urethra, with immediate relief.

Patient got along without further trouble but discharge, especially noticeable in morning, continued in spite of all local methods employed to bring about cure. Repeated urethroscopic examination showed no inflammation of the canal. Examination of prostate showed considerable swelling, left lobe giving a boggy sensation. Vesicles normal. Massage of prostate expressed large quantity of prostatic secretion mixed with epithelial debris. No pus evident, but examination of discharge showed cocci resembling in their grouping the staphylococci and not decolorized by the Gram method.

All other treatment was stopped and the prostatic massage, at first every fourth day, later every seventh day, massaging being continued six weeks. Patient was then discharged as cured and he has had no return of his trouble in spite of a very lax sexual life since.

CASE 3. Age 25, merchant. Contracted first attack of gonorrhoea and syphilis two months previous to consulting me. Gonorrhoea had been treated by internal medication and hand injections. Steadily grown worse. Examination showed superficial sores on base of

penis, profuse urethral discharge containing gonococci and supuration of left inguinal glands. History of severe infection of posterior urethra. I excised infected glands under general anesthesia. Gonorrhœa treated by irrigation, with permanganate or with Tyree's powder, by astringent injections and applications of nitrate of silver through endoscope. Improved under treatment and examination of discharge showed it to be free from gonococci after three months of treatment.

Pus always present, however, and at times considerable urgency in urination. Endoscopic examination showed the deep urethra to be considerably congested, but no erosion. Patient decided to go to Hot Springs for syphilitic condition. While up there, to use his own description, his penis ran like a fountain. On his return two months later, urethral discharge was profuse. Rectal examination showed seminal vesicles normal, prostate enlarged, slightly sensitive. Massage expressed prostatic fluid, mixed with pus, which contained diplococci not decolorized by Gram method.

Massage was done at first every third day. Later the intervals between treatments were increased. There was no other treatment. Patient declared that pus ceased with first massage. He was discharged after six weeks, with normal prostate, secretion free from pus, and has been well since.

These three cases will serve to demonstrate the important part the prostate may play as a productive cause in persistent urethritis.

I do not mean to discredit the importance of other pathological conditions as possible factors. Stricture of the urethra, erosion or ulceration of the mucous membrane, granular patches, infection of Cowper's glands or of the urethral glands, may any or all of them be present, either alone or in conjunction with an infected prostate.

When such conditions exist their cure is essential to the cure of the accompanying urethritis.

Nor do I take the untenable position that all cases of chronic prostatitis give such happy results under treatment as do the cases reported. Indeed, where there have been parenchymatous changes in the gland, or where there is complicating disease in the vesicles—and these conditions are probable in long standing cases—then the treatment requires an amount of perseverance which may drive both doctor and patient to despair.

But the cases reported are not isolated ones, selected to prove my thesis. If space permitted, and if there was anything to be gained thereby, I could add a considerable number of other cases where recovery was equally as prompt as in those reported.

And when all has been said, they are but another exemplification of the truth of that ancient axiom: *Sublata causa, tollitur effectus*.

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Ringworm of the Body Considered in a General Way.*

By J. N. ROUSSELL, M. D., Visiting Dermatologist to the Touro Infirmary, New Orleans.

To my mind the wide distribution of the trichophytic family of parasites among mankind and the domestic animals of this section of the country makes the subject one of great interest, and considerable more importance than the average one of us is inclined to believe. This is more particularly so in the animal kingdom for the simple reason that it is rarely recognized as such, and more rarely ever treated, which, undoubtedly accounts for a large number of the cases that we are called upon to treat in man.

Of course, I do not propose making the foolish assertion that ringworm is always contracted from animals, nor do I mean to say that all animals are infected, but I do insist that the domestic animals are by far the greatest sources of infection among a certain class of people.

* Read before the Louisiana State Medical Society, April, 1903.

Among horses and cattle, and, more especially, among those that are permitted to roam about in boggy pastures, and housed in badly ventilated barns where fermentation of the droppings is constantly going on, we find a large number of them affected with what farmers and stablemen are wont to call "barn itch" or "pasture itch." This, in the average case, is nothing more than ringworm, and it resembles very closely ringworm infection of the hairy parts of man.

Dogs, cats and swine infected with this parasitic disease are usually said to be "mangy," and, I believe there is no question but that with the exception of the swine, these animals are among the greatest disseminators of this disagreeable affection. Another prominent and quite frequent source of infection is the public bathing establishment, and especially those wherein large swimming tanks are in use.

These tanks are a very delightful adjunct to the gymnasium, and a boon to the urban community both young and old, but once they become infected it is practically impossible to rid them of the fungus, and the number of cases that originate from these pest-holes are only limited by the number of frequent visitors. I say "frequent visitors," because I do not believe that a single contact will always result disastrously, though, I have seen it occur a number of times.

Of course, it is quite often impossible to trace the source of infection in many cases, but I believe the above mentioned sources are the most common, especially, of those cases involving the body and the covered portions of the limbs. I was going to say the "variety" which attacks the covered portions of the body, but I am not quite satisfied that Sabouraud's opinion of the plurality of the trichophytæ is entirely correct.

As far as we are at present concerned, however, it does not matter materially whether there are several varieties or not. I believe on this point authorities are evenly divided.

Those who favor the plurality of the trichophytic fungus might justly be called the followers of Sabouraud who undoubtedly is the father of that theory, though it had been broached some years prior to his coming in the field. He certainly did the bulk of the work which went towards establishing the fact, if such it be. This

is certainly apparent to any reader of the literature of ringworm of the present day. All of these writers seem to accept his work as sufficiently conclusive.

According to Sabouraud's classification we are to recognize the two principal varieties as the small spored and the large spored parasite. The latter variety he divides into the two great classes of "endothrix" and "ectothrix," and it is in this particular division wherein he seems to be especially in error, for the reason that it appears to be based upon a mere accident of position, and, is possibly and extremely probably dependent upon the degree of invasion.

Sabouraud believes further that each variety of fungus always produces a special clinical type of the disease. This, many are unwilling to accept, and Leslie Roberts in particular criticizes his division of "endothrix" and "ectothrix," alleging that under different circumstances one may, and does change into the other.

Unna, for whose opinion most dermatologists have great respect, says with certainty that a trichophyton which induced in the face a scaling erythema, a few weeks later induced a nodular form of hypogenic sycosis. This, I believe is directly in line with the results of infection with parasites in general.

Ringworm belongs to the mold fungus diseases, and, however great the individual differences may be in the different localities, they all possess, according to Unna, the common features; First, that they induce a scaly disease of the surface epithelium; Second, a disease of the hair leading to destruction, or, at least, to dropping off of the hair shaft, and; Third, they do not, on the contrary, lead to the formation of scutula.

The first point distinguishes the group of trichophytions from certain diseases of the hair shaft alone; the second, from a series of other fungus—diseases of the skin, as pityriasis versicolor, tinea imbricata, etc.; and the third from that of Favus.

In this article I propose confining myself to the disease as it attacks the body, trichophytina corporis, including also the peculiar clinical variety known as 'eczema marginatum' or 'trichophytina cruris,' for the very good reason that it would take too long to cover the whole subject, even in review.

Most text books tell us that the diagnosis of ringworm is very

easy, and, as far as the average case is concerned, I grant that to be entirely true, but I have reason to know that many cases of ringworm of the body have not been recognized by very good diagnosticians, especially, when clinical features were alone depended upon.

Ringworm of the general surface, or *tinea circinata*, as it is often and familiarly called, exhibits many variations as regards its multiplicity, its inflammatory characters, its configurations, etc., and this is especially so where variations of temperature, moisture, and external irritants generally are involved.

In its typical and, of course, most frequent expression the disease is presented as one or many small, more or less circular, and somewhat scaly hyperemic spots, with margins sharply limited, and visibly, but not always sensibly elevated; that is, they have a perspectively elevated appearance. They are usually somewhat itchy and to the touch a parchment-like feel is imparted, unlike that of any lesion I have ever felt. They are unusually dry to the touch after a few moments of exposure, even though located in a naturally moist locality, and they always contain the *trichophyton* fungus, which is usually easy to demonstrate in the very superficial lesions. In this country it is rare to find it limited to single lesions, but in France, according to Sabouraud, it is rare to find more than one lesion, which appears to be due to the variations in temperature and moisture. In warm climates the individual perspires a great deal, the tissues are macerated, infection readily takes place, and new lesions are accordingly in continuous formation.

They spread peripherally, and in a uniform manner, as they extend, to clear up in the centre, assuming a ring-like shape; hence the name. When coming under observation, usually several days after their first appearance, the patch or patches are from one-eighth to an inch or more in diameter. They usually pale under pressure, and are not materially elevated above the general level of the integument, except in those comparatively rare cases where the parasite has invaded the derma proper. Generally, however, the borders of the patches are more prominent, and sometimes are studded with small vesicles and pustules, and, as a means of gauging the vitality and activity of the *trichophyton*, this symptom is of distinct value.

According to Sabouraud, the "activity of the trichophyton is directly proportional to the regularity of the circination of the margin of the patch, and the amount of erythema and vesiculation present." According to the same authority, "the more accurately defined the margin of the trichophytic patch, and the more padded up, so to speak, so much the more easily will it be to demonstrate the presence of the parasite."

The raised pad-like swelling around the edges of an active trichophytic patch is certainly one of the most useful characteristics for determining a differential clinical diagnosis.

I stated above that the centre of the patch is paler and less elevated than the margins, but, indeed, this is not always true. It quite often appears unaffected to the naked eye, in my experience, and this is more especially so on the body where the patches are young, numerous and active.

The amount of furfuraceous desquamation which may be present is, of course, dependent very much upon the location of the lesion and the amount of attention it had in the way of washing, and, also, on the nature and activity of the trichophytic process.

It has not been my fortune to observe many cases of ringworm wherein the vesicular element was present to any extent. In fact, I only remember having seen one case. I believe it is generally considered a rare condition, and according to Hyde "the vesicular lesions may appear at the onset or they may arise from the macular lesions." "In the former case pin point sized, transitory and superficial vesicles or vesico pustules spring from a central point or focus, and these speedily shrivel until they are represented merely by minute whitish branny scales."

The enlarging circlets of the disease proceed in their course to an evolution similar to that observed in the macular forms.

The difference due to a more active development of the fungus is noted, not merely in the type of the lesion, but, also, in the slightly exaggerated pruritic sensations that are awakened.

The papular and pustular forms of the disease are so rarely found on the body that I shall not speak more of them.

A type of ringworm which is quite often seen here is that known as "Eczema marginatum" or "Trichophytina cruris." The name *eczema marginatum* was given to it by Hebra, who was the first

to describe the affection, and it now appears that he was not far wrong, as the disease is now recognized as a true parasitic eczema.

It is usually confined to the genito-crural region and there it begins as the ordinary superficial ring type, with one or more areas presenting. Being favored, especially, by the heat and moisture of the parts they rapidly develop, coalescence takes place, and the parts assume a uniformly inflammatory aspect with loss of the ordinary clinical appearances. The whole of the region may become involved, and all of the symptoms of a moderately or markedly infiltrated eczema are presented, with the distinction, however, of a somewhat elevated and sharply defined border. It quite often extends considerably down the thighs, and in extreme cases well up on the abdomen, and between and on the nates. In woman it may extend to and involve the mucous membrane of the vulva.

Occasionally this type is also observed in the axilla, but this is comparatively rare.

Ringworm of the body is to be distinguished clinically principally from eczema, seborrhea, the early syphilide, psoriasis, and pityriasis rosea.

In pityriasis rosea the lesions have a more symmetrical distribution. There are as a rule, a greater number of lesions, and they are more inclined to an oval shape with a characteristic yellowish centre covered with furfuraceous rather than adherent scales. Constitutional symptoms, such as slight febrile reactions, lassitude, inappetence, etc., are common and, of course, here again the fungus is absent.

The eczemas are not often found on the body, and when located there they are noted for a much greater degree of itching and infiltration. They are not circular in contour; their borders are much less defined; their scales are coarser and there is no history of contagion.

Seborrhea is more chronic; its scales are fatty and more crusted and it is not usual to find it on the body except on the chest and back.

Syphilis is decidedly multiform in its lesions and is usually accompanied by a history of contagion; in fact, the lesions which are usually mistaken are the early ones, and the chancre or its

remains are generally present. I think it wise, however, to call attention to those cases which lack a contagious history, in which the chancre or its remains are not apparent and the patients insist on denying any possibility of infection. These cases, especially those presenting a maculo-papular eruption, are very likely to be mistaken for ringworm by those not thoroughly conversant with skin diseases and by a goodly number of the more careless dermatologists.

Of the later lesions of syphilis the circinate papular syphilides are the ones most likely to be confounded with ringworm, but this will not occur if we keep in mind the mode of development, the physical characteristics, the subjective symptoms of the syphilide, and finally the absence of the fungus.

Psoriasis in some of its manifestations is another disease likely to be mistaken for ringworm. Especially is this so of the annular patches. They resemble ringworm to some extent but the scaliness is greater, and the inflammatory thickening is more pronounced, and here too the absence of the fungus should be conclusive.

Treatment.—The proper treatment to use in a given case is a subject of great annoyance to many. The remedies that cure are legion. In fact, any drug that will produce an acute exfoliative dermatitis will in time effect a cure, but the question of time is quite often of something more than ordinary importance, and the location of the lesion is again a matter of some importance in selecting the remedy. The latter is particularly so in the treatment of ringworm in women. Especially, when located on the face, neck and arms. In these localities it is not feasible to use drugs that discolor to any extent, and in many cases ointments are not among the favorite applications, especially with the ladies.

We must of necessity then resort to lotions, and among them I will mention the solution of hyposulphite of soda, 25% ; resorcin and salicylic acid in 5 to 10% alcoholic solution; strong boracic acid solution and solution of bichloride of mercury of from 1 to 3 grains to the ounce.

These solutions are all colorless and should be frequently and persistently applied.

Where appearances are of no moment, I am convinced that the tincture of iodine is by far the simplest and generally most satisfac-

tory agent ever employed in the treatment of ringworm. A lesion to which iodine has been properly applied is nine times in ten a dead one.

Of the ointments, those containing sulphur and betanaphthol, and the oleates of mercury and copper in strength varying from 5 to 10% are the most generally satisfactory.

Of the physical agents, I believe the ultra violet ray in the presence of free oxygen is a certain means of destroying the ringworm fungus. One application of the light is quite often sufficient to effect a cure. In one case in particular, forty eight hours after the application of the light for ten minutes, there was absolutely no evidence of the disease.

Several have reported adversely to the use of this light in the treatment of ringworm, but I feel quite certain that had they used the light in the presence of free oxygen their results would have been different.

I have not yet had experience with the X-ray in this particular affection, but I would be inclined to expect similar results. Hyde and Montgomery report no success in the treatment of ringworm with the X-ray, but I think if oxygen had been used their results would have differed.

In experiments on the action of light as a germicide, it was long ago discovered that no form of light killed bacteria except in the presence of free oxygen. Hence my reason for using it.

Clinical Report.

Acute Ascending Paralysis. With Report of Two Rapidly Fatal Cases.*

By C. D. Simmons, M. D., Dutch Town..

As chairman of section of Neurology, I beg to report two rapidly fatal cases of acute ascending paralysis, both occurring in my vicinity.

Some of you will, no doubt, think that I intend to dip deep

* Read before the Louisiana State Medical Society, April, 1903.

into that most mysterious of diseases: "Landry's Paralysis," but such is not the case. Although both of the cases herein reported died in a few hours after the onset of the trouble, so far as I can see they have nothing in common with Landry's Paralysis, except that the paralysis was of the ascending form. They are rather to be classed, in my opinion, as apoplexy of the spine.

1st. Case. Man, 40 years of age, in good health, no history of alcoholism, arterio sclerosis, or syphilis. Was helping to drive some cattle. He was on horseback and had a rope in his hand, which was attached to a cow's head. The cow stopped suddenly, giving him a slight twist of the spine. No inconvenience was felt at the time, but, soon after, a numbness was felt in the feet, which gradually extended to the body. The man was able to reach his home, a few miles distant. Death followed in about 10 hours after the accident, being due to the paralysis reaching the respiratory and circulatory centres.

2nd. Case. Man, 20 years old, was working at a sugar refinery, and stooped to pick up a small stick which did not weigh more than 2 or 3 pounds. The twist or exertion was enough to start a paralysis very similar to the first case. He continued at his work for about an hour, and then was carried to his home, several miles in the interior. He died about 10 hours after the onset of the paralysis. No history of syphilis nor alcoholism could be elicited, nor was there any evidence of arterio-sclerosis.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. E. J. GRANER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING OF NOVEMBER 14, 1903.

[Continued.]

DISCUSSION ON DR. GRANGER'S PAPER.

DR. JONES said that the case was not cured yet.

DR. JOACHIM asked what particular make of needle was used for mercuric cataphoresis? How far from the point stopped the insulation? He had used copper needles for the diffusion of oxychloride of copper in cases of ozena, but the results were not entirely satisfactory. A large amount of persistency was necessary in these cases on the part of the doctor and the patient in order to accomplish good results. The method demonstrated needs our serious attention and should be given a fair trial.

DR. ASHER wished to know what strength of mercuric solution was used and how he limited its dissemination.

DR. GRANGER did not claim that his patient was cured, but brought her before the Society because it was the case which he had treated by the cataphoric method. The case had been treated only four weeks ago and he did not consider that yet sufficient time had elapsed to come to any positive conclusion. It seemed to him that the growth had been destroyed and that the process was now simply one of healing. The amount of mercury was not measured, but was controlled by the strength of current employed. From the appearance of the growth much depended; the application was discontinued when the growth was softened and turned into a grayish mass. The zone of sterilization was marked by a reddened and puffy zone, just beyond the apparent limits of the malignant growth.

DR. PARHAM asked how many sittings were required to treat the severe cases. He also asked Dr. Granger if he would consider the method appropriate for a case of advanced epithelioma of the tongue involving the floor of the mouth and whether such a case would be best treated by successive application or at one sitting?

DR. GRANGER, in closing the discussion, said that whenever possible the whole growth was destroyed in one sitting by a major mercuric cataphoric operation under chloroform. The current was always turned on gradually and in the cases cited by Dr. Parham, he would proceed at different sittings, if the patient could bear the storage current and longer applications.

REPORT OF CASES.

DR. LEBEUF related a case of *vicarious menstruation* in a young lady whom he recently had under observation. She began menstruating regularly in a normal way at about 14 years of age and while attending the Normal School a year ago she received a very sudden fall while menstruating. The menstruating ceased and since that time she had at the regular menstrual epochs, instead of menstruating in the usual way, vomited blood from the stomach. She would begin vomiting and then continue spitting up small quantities and then in a day or so would expectorate large quantities. This in the course of a few days would subside, as is the case in normal menstruation. After consulting with Dr. Lewis it was decided that it would be wise to dilate and curette the uterus and apply in the os uteri a silver wire stem pessary. Since the operation the menstrual period appeared in its normal way, she expectorating only small quantities of blood the first day and none afterwards. This condition lasted eight months. She has since the operation menstruated twice normally, spitting only a little blood the first day.

MEETING OF NOVEMBER 28, 1903

DR. GRANER, President in the Chair.

DR. PERRILLIAT read a paper on

Catheterization of the Ureters in the Female.

The object of this paper is to try to bring out the difficulties which beset a beginner in his attempt to perform an operation which

appears simple in the text, but which is surrounded by a great many difficulties of a technical nature that can only be overcome by special schooling in that one particular performance. First is the use of the head mirror, according to Kelly's method, which is the one that was used in the cases to be cited. Few men, outside of the practice of laryngology are sufficiently expert in the use of it to direct a well focussed ray of light on any desired spot, and keep it there, while engaged at the same time in manipulating instruments in a small field of operation. Then, again, as we all know the genu-pectoral position, which is the position of election, is an extremely fatiguing one to maintain for any length of time, even at best, when we have a docile and phlegmatic subject to deal with. When the patient is hysterical and excited, as the majority of women are, when about to be subjected to any instrumental form of treatment, the difficulties are again made greater. The urine, too, has to be evacuated from time to time, for otherwise it obscures the view. However, these are all difficulties which can be overcome, and in which the personal equation plays the greater part. Not intrinsic difficulties in the application of the principle of catheterization. Kelly and his corps of assistants perform catheterization of the ureter daily, in the treatment for instance of cases of pyelitis where the pelvis of the kidney has to be washed out two or three times a week, the patient in these cases, being placed in Sim's position, slightly modified. By repeated performances they have become sufficiently proficient to accomplish with comparative ease what would require a great deal of time and effort on the part of a novice. These very difficulties however, I believe, will always limit its field of usefulness in the hands of a few men who will have devoted themselves to perfecting their skill in this one particular direction.

My first experience with ureteral catheterization was on a patient with a vesico-vaginal fistula, and the suggestion came from the fact that when the patient was placed in Sim's position, and the fourchette retracted, bringing the fistula in view, the urine, as it flowed out, was seen to contain a small thread of pus, which was suspected, from its direction, of coming from the left ureteral meatus. The patient was then placed on the back, and when the abdomen was explored, an enlarged kidney was found on the left

side, the patient's temperature chart showed a septic course, and it was inferred that the condition was probably one of pyogenic infection of the kidney, the infection due to the fistula, having extended from the bladder by way of the ureter. It was, of course, out of the question to attempt to close the fistula with a co-existing renal affection so ureteral catheterization was resorted to, in order to throw more definite light on the morbid conditions.

The patient was given a general anesthetic and put in the extreme or exaggerated dorsal position, by means of several pillows placed under the hips, and the legs flexed on the abdomen. A head mirror was used to throw light through a No. 12 Kelly cylindrical speculum and the instrument first introduced through the fistula. After a few minutes of useless search, the instrument was withdrawn and re-introduced through the urethra, and according to Kelly's directions, after about fifteen minutes of endeavor, the meatus of the right ureter was discovered, located by a metallic searcher, and finally a Kelly ureteral catheter introduced as far as the pelvis of the right kidney. The resistance of the brim of the pelvis was distinctly felt, due to the change of direction of the ureter at this point. The urine came out in the characteristic manner, by starts, and about half a test tube was collected for examination, to ascertain the condition of the right kidney.

Search was then instituted for the meatus of the left ureter, but instead of a normal meatus, three little red, leaf-like prominences were found, between which a thick, creamy pus was oozing, accounting for the pus thereof seen in the urine escaping from the fistula. All attempts to introduce a catheter were unsuccessful, and it was thought from this that the ureter was occluded and that not only the kidney, but the whole extent of the ureteral tract was diseased. The nephro-ureterectomy performed subsequently proved the result of the examination to have been correct.

Although the pathological condition present had been surmised from the history of the patient and the physical examination, the ureteral catheterization gave a certainty of accuracy, which greatly strengthens the fortitude of the surgeon in performing such a radical operation as the total extirpation of a kidney and ureter. Again the examination of the urine from the right kidney was an additional item of useful information, because it was thus demon-

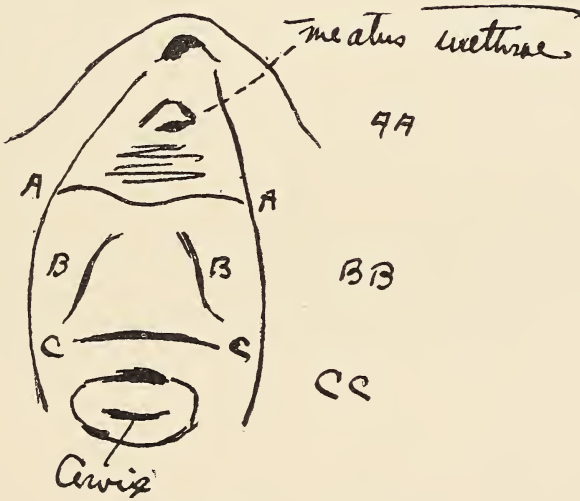
strated that the whole work of excretion was already being carried on by only one kidney, and the removal of the other would not disturb the equilibrium of the excretory process.

It may be of interest at this point to look into the history of catheterization of the ureter. Exploration of the ureter is a comparatively recent procedure. Tuchmann, in 1874, had conceived the idea of collecting the urine from one ureter by compressing the other one through the vagina. To Simon, in 1875, first is given the credit of catheterizing the ureter by the tactile sense, the index finger being introduced through the dilated urethra into the bladder, the inter-ureteric ligament being used as a guide, the blunt point of the instrument being made to glide to the side that is destined to be catheterized. Following Simon, Pawlik, in 1880, simplified to a certain extent the procedure by guiding himself altogether by certain well-defined anatomical landmarks on the anterior surface of the vagina, giving, not only guides to the introduction of an instrument through the urethra, but also rendering more practical the palpation of the ureters, *per vaginam*. The principles established by these two great masters are found underlying all the subsequent methods brought forward for this purpose. Whether for palpation or for catheterization we have to know and keep in mind the definite limits of the field of operation, and also the exact relation of the anatomical structures with which the ureters are connected. This field is in outline a trapezoid, the diverging sides of which are formed by the ureters themselves laterally, the smaller base by the inter-ureteric ligament, which corresponds with the base of the trigone of the bladder; the larger base by a line drawn from the points of intersection of the ureters with the broad ligaments. Normally ureters are extremely hard to palpate through the vagina, being only about one millimeter in diameter; but diseased ureters are more easy of detection in proportion to the extent of the disease, becoming more or less fixed, thickened by peri-ureteric exudates and sensitive to pressure. Sanger has called special attention to the palpation of the ureters against the fetal head in cases of pregnancy, the hard resisting structure forming a back-ground against which pressure is made, the process being rendered more simple by the placid condition of the structures, the ureter slipping under the finger like a cord, and distinguished from a blood vessel by its lack of pulsation.

To facilitate catheterization Pawlik has gone further and describes certain fixed landmarks on the anterior surface of the vagina, corresponding accurately with the limits of the trigone of the bladder on the opposite side of the vesico-vaginal septum, and to which the name Pawlik's triangle has been given. If the patient is placed in the knee-chest position, after all aseptic precautions have been taken, the bladder partially distended with water, and a Sim's speculum introduced, allowing air to distend the vagina, the weight of the intestines making traction and stretching the anterior vaginal wall, we find certain folds on the anterior vaginal wall which are constant and which guide the sound on its way through the bladder. The accompanying diagram will illustrate them.

Pawlik introduced a metallic sound through the urethra, the tip of the instrument making pressure on the vesico-vaginal septum, and its course followed by the little prominence made thereby, and guided by the rugae, kept within bounds of the triangle. When the inter-ureteric ligament is reached the sound encounters resistance, and by slight alternate movements of rotation, and elevation and depression, the angle is found at which point is the ureter. The sound, as soon as the ureter is reached is felt to glide in, the freedom of movement of the tip becoming more and more limited the higher the sound is pushed; the urine then begins to flow, but quite characteristically, by starts, not continuously as it would under the constant pressure of the bladder. When the sound reaches the brim of the pelvis, greater resistance is felt on account of the change of direction of the ureter at this point.

In this country the next step forward in the history of catheterization, and which immediately precedes the use of instruments with minor and light attachments, is so beautifully and clearly described by Kelly, that the method has become synonymous with his name, and certainly, when all its many advantages and few disadvantages are compared all those of more recent modifications, it is one which gives the best and most reliable results. Briefly described, the method is as follows. The patient is placed preferably in the knee-chest position, and atmospheric distention of the bladder obtained by introducing one of Kelly's cylindrical specula. The farther extremity of the instrument is introduced to a point just be-



(Dr. Perilliat's Article.)

AA. Transverse fold corresponding with the apex of the trigone, or internal orifice of the urethra.

BB. Lateral folds corresponding with the lateral boundaries of the trigone.

CC. Transverse fold corresponding with the inter-urethral ligament forming the base of the trigone.

yond the internal orifice of the urethra. The handle of the instrument is then made to describe an arc of 30° , the surface of the bladder illumines either by a ray of light obtained from a head mirror, or a little head lamp. The orifice of the ureter is then looked for and located by means of a metallic searcher. Catheterization is then effected by either a soft Kelly catheter or a Pawlik metallic sound, the urine coming by starts, the flow lasting for three or four seconds and then stopping for several seconds. This is due to the physiological function of the ureter, which is not merely a passive conduit for the urine, but an active structure possessing a well marked peri-staltic wave, which begins at the pelvis of the kidney, and expresses the urine.

In more recent times a number of instruments have been devised, consisting in virtue of a metallic cylinder, just as in Kelly's method, with the source of light, however, at the distal extremity of the instrument, provided by means of little electric lamps. The one great objection to all of them is that they may easily get out of order, usually just at the time when you want to use them. The difficulty is in having them repaired, and the cost, which is usually great, has also a tendency to restrict their use. The greater advantage that can be placed in Kelly's method is certainly an advantage more than enough to offset the difficulty which the lack of experience with a head mirror at first creates.

DISCUSSION.

DR. LEMANN spoke regarding the technic for bladder examination and ureter catheterization. He thought that Dr. Perrilliat had left out some points of minutiae in describing the technic that might be well to bear in mind. First, as to position. The genu-pectoral posture was not necessary, though usually the most satisfactory. The exaggerated Simm's position was far more comfortable for the patient as well as for the operator. The hip should be brought near to the margin of the table, under which has been placed several pillows. Another position that was of value was an exaggerated combined lithotomy and Trendelenberg. A point of great importance in securing a thorough exposure of the ureter was the preliminary ballooning of the vagina or rectum, permitting air to rush in. This could be easily done by introducing a small

Simm's speculum into the vagina, this speculum being withdrawn at once after having accomplished its purpose. Absolute asepsis was essential. A number of things were conducive to a successful and comfortable procedure, such as the emptying of the bladder and rectum *immediately* before beginning work. In operating in the knee-chest position a general anesthetic was both inconvenient and dangerous; in all positions it was usually unnecessary. Cocain as an anesthetic should be used. Dilatation of the ureter should be preceded by the application of a pledget of cotton, saturated in a 10% solution of cocain. This will enable the operator to manipulate even the most nervous patient. With a small medicine dropper a few drops of a 10% solution of cocain should be injected into the meatus of the urethra. As regards the use of instruments, he agreed with Dr. Perrilliat that Kelly's outfit was the best. He had found that even the best small terminal lights were easily broken, easily burned out and not in working order when most needed. The man who relies on a head mirror can do work at any time and any place. He had tried the method of using the light carrier, but had found the light very liable to become short circuited. When the head mirror is used it is necessary to operate in a dark room.

DR. GUTHRIE said that at the October meeting of the Mississippi Valley Medical Association he had seen Dr. Lewis, of St. Louis, show some instruments devised by him for the extraction of ureteral calculi that were lodged some distance from the meatus of the ureter. Among these instruments were some forceps that could be inserted into the urethra and passed up some distance, directly seizing the calculus; there was also a ureteral dilator having long shafts. The scissors displayed on this occasion were very delicate, but able to do a certain amount of cutting. These instruments were designed for the male. Dr. Lewis reported half a dozen cases of calculi that were too far up the ureter to be seized by the forceps, but after the use of the ureteral dilator with irrigations, the calculi became dislodged and passed into the bladder, this being attributed to the dilatation and irrigation through its stimulation of the peristaltic wave of the ureter. The distance of the ureteral calculi from the bladder terminus of the ureter, was determined by means of the ureteral sound.

DR. MATAS: The catheterization of the ureter and segregation

of the urines was a subject that had interested him for many years. Since 1890 he had tried to follow in his own practice the progress that had been made in this valuable mode of investigation. He began to use the Leiter's cystoscope and Brenner's ureteral-cystoscope since 1889 for demonstration on the cadaver before his classes in the dissecting room when he was demonstrator of anatomy. In order to demonstrate the use of the catheterizing cystoscope on the cadaver he would fill the bladder with water and introduce a black stylet into the ureter from above and guided it down into the bladder to indicate the orifices of the ureters plainly. This facilitated the demonstrations but he had been able to catheterize but few living subjects with the Brenne instrument though he had used the Leiter cystoscope successfully for several years in bladder examinations. This was due in part to the inherent difficulty of the procedure in the male and also the imperfection of the old imported lights which were very short-lived and became very hot. Bransford Lewis had recently very materially facilitated the technic of catheterization by substituting air for water in inflating the bladder and by using the excellent cold lamps of the Rochester Surgical Co. In this way a prolonged illumination without heat was obtained and the great disadvantage of a muddy, turbid or bloody fluid which obscured the field was avoided. He had been interested in this subject as a general surgeon chiefly in the separation of the urines of the kidneys for diagnostic, prognostic and operative purposes. The separation of the urines was of great practical value, first from a differential diagnostic standpoint—especially at this moment when we were so often called to consider the propriety of decapsulating kidneys for nephritis, and as recent studies of this subject showed, the lesion is not necessarily bilateral or equally marked on both sides, it was desirable, therefore, to make a separate analysis of the urine of each kidney with the view of determining which side should be operated upon first; secondly, the bacteriological examination of the separate urines was important in order to make the differential diagnosis of tuberculosis and other infections of the kidney; thus materially helping the operator in deciding whether to be conservative or radical in his treatment; from the operative point of view the catheterization of the ureters was valuable in identifying the ureter and preserving it from injury especially

when it was buried in the midst of malignant infiltrations in the pelvis; finally, ureteral catheterization was of service in a few cases as a means of medicating or treating the ureters or pelvis of the kidney and of dilating strictures of this channel. As the separation of the urines was most important from the diagnostic point of view—and as this could be done in the majority of the cases without catheterizing the ureters by means of a segregator which could be readily mastered and utilized by any one who was possessed of ordinary ability, he advocated and resorted to this means of exploration very much oftener than by ureteral catheterization, especially in the male subject. Of course it was more satisfactory to catheterize the ureters directly but this was a delicate procedure fraught with many technical difficulties which could only be overcome by one who was in the habit of performing this operation almost as a daily routine. Even then as a recent case had come under his observation attested, the catheterization of the ureters of the male was impossible in some cases and in others it required long and repeated trials before it could be successfully accomplished. In one case a most competent and widely known German urinary specialist had succeeded in catheterizing the ureters only after a most thorough preparation of the patient and only succeeded after repeated trials which lasted a whole week. On the other hand, segregation with the Luys, instrument which he now exhibited to the Society was comparatively easy and within the power of most surgeons to apply. He had exhibited to the Society some years ago the ingenious Harris' segregator and had used it very successfully in his practice; but he had found it very unsatisfactory in the male subject, especially in prostatic cases and had practically restricted its use to the female bladder. More recently, however, he had found the catheterization of the female ureters so simple a matter that he almost invariably gave the preference to this procedure instead of the segregator. In catheterizing the female ureters he had begun years ago, like Dr. Perrilliat, by using the Kelly instruments and mirror, or better still an electric head light but had finally abandoned the head light altogether for the much simpler and far more satisfactory terminal cold lights fixed to the top of an ordinary ureteral endoscope. He had found that a set of illuminating endoscopes of various sizes and lengths sold as the

Guiteras' endoscopes, were very well adapted to the purpose. He had found the knee-chest position most advantageous and the one in which the best view of the ureteral orifices could be obtained, especially as the operator was rarely inconvenienced by the urine which accumulated out of the way, in the most dependant parts of the distended organ. An endoscope of proper size was used in this position which promptly brought the ureteral orifices to view. After they were well exposed he introduced an ureteral "catheter guide" or canula which he had especially constructed for this purpose; this carried the catheter to the orifice of the ureter and held it there firmly until it was inserted; the catheter was then fed through this canula into the ureter until the whole length of the ureter had been explored. The Pawlik-Kelly metallic catheter was likely to cause some injury if used by unskilled hands. To avoid this trauma he has had this catheter guide made for him by the Kny-Scheerer Co., and had found it very convenient and effective in carrying the soft catheter into the ureter. The procedure had become so simple by this means that he could not conceive of a safer or easier method. Nevertheless, when the problem to be solved was solely to obtain a separate specimen of the urine from each kidney for diagnostic purposes he proposed to avoid the risk of possible infection of the ureteral tract and limited his investigation to the collection of the urine from each kidney by using an illuminating male endoscope as a collecting tube. The ureteral orifices were exposed and by forcing the open end of the instrument against the ureteral orifice, the urine was collected directly from the ureter and thus guided into a test tube in sufficient quantity for analytic purposes. Another device which had recently occurred to him as being of value which he proposed to show to the Society in the near future, was an aspirating endoscope with a tip at an angle to fit the exposed floor of the bladder over the ureter. After exposing the ureteral orifice, the opening of the tube could be placed just over the orifice and by means of a rubber aspirating bulb a vacuum would be created which would aspirate the urine into the tube in sufficient quantities for analysis. By this suction arrangement the urine would be allowed to accumulate almost automatically in the tube without compelling the operator to watch the ureteral orifice while the urine was being collected. He

had not yet had occasion to apply this instrument, but he conceived it would be so simple in its application that he felt confident it would prove a practical addition to our exploratory resources. The catheterization of the female ureter and the separation of the urines had now become so simple in the female that there was scarcely any excuse for not resorting to this most valuable mode of exploration whenever it was indicated. It was otherwise with the male ureters. The catheterization of these was always a delicate and often most difficult matter; hence the value of the simple instrument, the Luys' segregator which he now showed the Society and which usually accomplished its purpose easily and well. It was introduced into the male bladder as easily as a curved steel bougie and once in place the urine of both sides was easily separated by stretching a movable rubber diaphragm which separated the base of the bladder into two distinct halves. He had compared the Luys' instrument with the Cathelin segregator and it seemed to him that the former was by far the simplest and best instrument. Hartman, in whose clinic in Paris this instrument had been first applied by its inventor, had reported in a recent paper that 200 successful segregations had been made in the last year with the Luys' instrument at the Lariboisière Hospital and judging also by the fact that Cathelin had recently reported over 100 segregations at Prof. Guyon's clinic, where ureteral catheterization was a well known specialty, it would appear as if ureteral catheterization was being rapidly supplanted in its greatest stronghold (Guyon's clinic) by the far more simple method of segregation. After showing the details of this instrument and the ease with which it could be applied and taken apart the speaker insisted upon the great care that this as well as similar delicate instruments required to keep them in good working order. The catheter became easily clogged and the delicate chain used to stretch the rubber diaphragm would rust easily with the least neglect. It was like a little baby which needed careful nursing to keep healthy, but apart from this great care he had satisfied himself by actual experience that no more satisfactory instrument had been devised for use by the general surgeon than the Luys' segregator. It was not only simple and effective, but it was painless and harmless in its application.

-Dr. Matas while on the floor also exhibited an appliance (*device*

for draining the gall bladder after cholecystotomy), which he used with very satisfactory results in draining the gall bladder without soiling the patient or the dressings. The difficulty of keeping the patient clean after cholecystotomy without frequent change of dressings had proved very annoying in the earlier years of gall-bladder surgery. Several years ago he had adopted the plan of attaching an ordinary nursing bottle to a small rubber catheter which was joined to the tube inserted in the gall bladder. This plan he had originally found very useful in draining the urinary bladder after perineal urethrotomy; but frequently accidents occurred with this arrangement as the bottle was turned over in bed unless special care was taken to avoid this. Recently Dr. Cook, of Indianapolis, had described his method of collecting drainage from the gall bladder by allowing it to discharge into a rubber bag which acted as a reservoir. This plan also required comparatively frequent change of dressings. Recently, however, Dr. Matas had applied the simple device which he exhibited and which obviated the necessity of frequent changes of dressings. With the aid of Drs. Maes and Rembert he had improved upon the idea of Dr. Cook by attaching a glass outlet to the bag which was provided with a light clamp, like that which controlled the outflow of a fountain syringe. The rubber bag or reservoir for the secretions was connected to the drain in the gall bladder by a detachable glass joint. The accumulations in the bag were allowed to escape at intervals through a glass tube also attached to a rubber drain which was clamped as it projected outside of the abdominal binder which held the dressings in place. The nurse or patient would soon learn by experience how often the bag had to be emptied. This could always be done by releasing the clamp and pressing on the bag as it was felt under the binder. This appliance had among other advantages that of allowing the patient to turn and move in bed without fear of upsetting a bottle or obstructing the drains formerly used, and also of keeping the dressings clean without frequent and annoying changes.

DR. MILLER said that there were some practical points in the use of the endoscope for purposes of catheterizing the ureters, that should be borne in mind by all beginners. He had found the dark room practically essential for success when using the mirror and lamp. The exaggerated lithotomy position had proved most satis-

factory in his practice. In women who had not borne children it was well to raise the anterior walls of the vagina by a small pledget of cotton, thereby favoring the exposure of the ureteral orifice. The ureteral meatus opened transversely in the mucous membrane of the bladder and in searching for them it was well to look between these little folds of the mucous membrane. He had not found the expensive apparatuses necessary to accomplish good results in women, but with an ordinary head mirror, coal oil lamp, simple endoscope, all of which were worth not much more than \$5.00, satisfactory results could be obtained. There was a tendency to use too large calibre endoscopes, the 8, 9 and 10 Kelly endoscope was all that would be required. He had found that the coal oil lamp gave better results when used with the mirror than the ordinary electric light, unless the electric light bulb was frosted.

DR. C. EDMUND KELLS, JR., D. D. S., (by invitation) read a paper on

The Roentgen Ray and Its Application to Dentistry.

Immediately upon the announcement of the discovery of the Roentgen Ray, the dental profession predicted its value in its own specialty, and time has since verified that prediction.

Having been one of the early operators who had to contend against the difficulties of all kinds that were naturally met with in the application of a new art, I have had at least the pleasure of watching and appreciating the wonderful strides made in the improvement of the apparatus used for generating the X-Rays.

The first skiagraph which I saw taken was of a hand, and it required twenty minutes exposure. Now this same result, or rather a better one, can be readily obtained in one-third of a second, or in other words the apparatus available to-day is practically four thousand times as efficient as that originally used.

While it would be an exaggeration to state that skiagraphy is an indispensable adjunct to the practice of dentistry, it is well within the lines of reason to affirm that the dental practitioner who uses the X-Ray is in many instances in a position to render his patient better service than without it.

Dental skiagraphs are valuable in the following cases:

1. In orthodontia for locating unerupted teeth or proving their absence.

2. In alveolar abscess an obscure cause may frequently be discovered by a skiagraph and valuable data obtained about conditions surrounding the apex of the root of the tooth.

3. In root canal filling, the length of the root may frequently be exactly determined, which otherwise would be impossible.

4. The removal of roots of teeth which have been broken off and left imbedded in the process, is rendered more positive and perhaps humane by the aid of the skiagraphs which clearly locate them and outline their shape.

5. The removal of impacted third molars is transferred from the realm of guess work into that of compact science, and if used for no other purposes would prove of inestimable value in such cases alone.

6. Instruments that have been broken off in the root canals of teeth may be clearly shown.

7. The condition of the bone surrounding replanted or implanted teeth may be studied and in no other manner can this be done.

8. The outlining of the roots of malformed teeth is frequently of great assistance in the proper filling of their root canals, and also for determining whether or not such roots are capable of properly sustaining artificial crowns.

In our work, celluloid films are naturally more suitable than are glass plates, owing to their ease of manipulation, and these, of course, must be rendered light and moisture proof, for insertion within the mouth.

The size of the films render their handling quite difficult during the various steps in the process of development, etc., and to overcome this difficulty the following method of manipulation has been devised.

In this way the film is never touched with the fingers during all these stages, and incidentally the chemicals do not come in contact with the hands, which is quite an advantage.

The length of exposure necessary for a dental skiagraph varies of course with the power of the apparatus used, and also somewhat in the individual cases. I now expose from one to three seconds according to the thickness of the parts to be penetrated, and sometimes get a very good picture in considerably less than one second.

I have a specimen with me of a practically instantaneous exposure, by which I mean it was taken in the one-fourth or one-fifth of a second.

I have not gone into details of general X-Ray work, because all of you must be perfectly familiar with them, but only wish to impress upon you the great value of this art in dentistry, the practical application of which is best shown in specimens of the work. The models representing the history of the third molars represent first, a model of the case as it presented, second, the skiagraph of the case, and third, the extracted tooth imbedded in a duplicate model in the original position it occupied in the jaw.

I also show a model illustrating its use in orthodontia, which demonstrates most clearly its value in such cases.

While an ordinary skiagraph is a flat picture and presents but few features of interest and none of beauty, the application of the laws which govern stereoscopic vision to this art, produces the most wonderful effects.

While the taking of stereoscopic skiagraphs of other parts of the human body are more or less difficult according to part selected, it is always difficult in dental cases owing to the natural obstacles to be overcome in this locality. However, with perseverance, it is possible even here, and I have some examples of this character of work for your inspection.

In this connection I would say that the usual mode of showing stereoscopic pictures is by means either of the Wheatstone reflecting stereoscope, or in mounted reductions for the ordinary popular stereoscope, specimens of the latter being here for your viewing.

Finding that both of these methods have several objections, I devised this little apparatus, which I believe displays the picture in a much better manner than either of the others. In this way the beauty of the details of the picture may be more fully brought to view.

I have refrained from going over much ground with which you are all perfectly familiar, or elaborating upon details which would prove of no interest, believing that a study of the models and pictures presented and discussing the same would prove mutually more interesting and profitable.

DISCUSSION.

DR. PERKINS had had only a limited experience in dental radiography, but from the one patient upon whom he made many attempts to get a satisfactory picture of a supposed unruptured tooth he was in a position to thoroughly appreciate the suggestions made by Dr. Kells for the technic of this work. He had first tried glass films with black paper and rubber as a cover. He had made eight or nine exposures of many minutes duration, but only obtaining a fair result. The matter of developing the small film had proved quite troublesome in his hands and he thought that the advice of Dr. Kells was both ingenious and reduced the question to its simplest solution.

DR. GUTHRIE said that when one thinks of the procedure taught in the dental schools of to-day for determining the presence and relation of undeveloped teeth, that of exploring with the dental drill, the great value of the X-Ray in this work could be realized the more. If the X-Ray was not used in this class of cases there was no alternative other than to use the mallet and chisel or the drill, a very crude procedure in comparison to the radiograph. If viewed only in the light of the time utilized in both procedures, it would be worth while.

A vote of thanks was extended by the Society to Dr. Kells for his valuable contribution.

DR. GUTHRIE read a paper on

**The Diagnosis of Renal Calculus by Means of the X-Rays,
With Report of Cases.**

Improvement in apparatus and an increased knowledge of technic has rendered the Roentgen Ray of great service in the diagnosis of this condition. The first case of kidney stone diagnosed by means of the X-Rays, was reported in 1896. Since then more than 200 X-Ray operators have placed cases on record. We have now in this agent a means of diagnosis fully equal in importance to the centrifuge, the segregator, and to the catheterizing cystoscope. Indeed, many claim the first place for this agent as a diagnostic measure. Certain it is that with proper technic and a good negative, or better a series of negatives, showing shadows of stones in the

region of the kidney or ureter, we are in possession of more accurate data than can possibly be furnished us by any or all of the other agents. Calculus in the ureter can be located by means of Kelly's wax tipped ureteral catheter and a positive diagnosis made. Segregation of the urine from the two kidneys would show which kidney or ureter contained a stone; but without the X-Ray, it would be impossible to make a diagnosis of an encysted stone in the kidney cortex in the absence of pus or red blood corpuscles in the urine. Anuria caused by an obliteration of the lumen of the ureter by stone could not be differentiated from other mechanical obstruction of the organ. In this event segregation would show an indication for operation; but it could not be determined in advance whether or not stone in the ureter were present, excepting by means of the radiograph. Exploratory operation upon the kidney has a mortality sufficient to make it a capital operation, and when we consider the absolute harmlessness of making the radiograph, we are not justified in making an exploratory operation for suspected stone without having first elicited the aid of this agent.

Not only can we say after a satisfactory positive radiograph examination of the patient that a stone exists; but we are able to determine the size or number and location of the stone or stones. In a good radiograph showing kidney stone or ureteral stone, the bony landmarks are well shown, together with even outlines of the lumbar muscles. These enable the surgeon to place his incision to greater advantage, knowing in advance where the offending body will be found. It goes without saying that the operation can be made with greater ease if this data is already known. It has frequently happened that in operating cases of kidney stone that the operation is completed and stones left in the kidney or the ureter which eventually call for a repetition of the procedure. A good radiograph of a kidney containing stones does away with the necessity of exploring the kidney with a needle at the time of the operation. Indeed in a case showing the presence of a stone in the pelvis of the kidney, the kidney cortex may be left undisturbed and the stone extracted with a minimum of traumatism.

Stones formed from urinary concretion offer varying degrees of resistance to the passage of the X-Ray. Phosphatic stones are the most dense, cast the deepest shadows and consequently are the

easiest of detection. Calculi composed of uric acid or urates on the other hand offer the least obstruction to the X-Ray, cast the faintest shadow and require the greatest perfection of technic. In between these in point of opacity are the calculi made up of calcium oxylate or calcium carbonate. Fortunately a calculus composed entirely of uric acid is a rarity. The nucleus may be uric acid and the surrounding portion phosphatic in nature, or we may have a phosphatic nucleus with an outside covering of uric acid. Even in the case of a pure uric acid calculus, we are dealing with a substance whose density is greater than the surrounding soft parts in which it is imbedded, and it remains for the X-Ray operator to bring out in his negative the contrast which exists.

The question of the value of a negative diagnosis depends largely upon the man who makes the radiograph. It is not too much to hope that the next year or two will place us in a position to make as accurate a negative radiograph diagnosis as we can now make a positive one.

The two following cases are both illustrative of data furnished by the X-Ray which was not obtainable by any other agent save exploratory operation.

Case 1. M. H. was admitted to the Charity Hospital, Ward 9, April, 12, 1903. Patient was a white male, aged 27. The family history was negative. Patient is a native of Mississippi, where he had lived all his life. Had suffered with intermittent malaria at intervals since childhood. In 1897 had had yellow fever.

His present trouble began in early life. He did not remember when the attacks began, so early in his life did they occur. He suffered pain, which occurred in paroxysms once or twice every day. At this time his sensation was as if someone were twisting the umbilicus. When they occurred he was compelled to sit in a squatting position. This procedure seemed to somewhat alleviate the pain. Up to the time of his admission to the Hospital he had followed his occupation of logman. Several times previous to admission and once a few days after admission passed small calculus from the urethra. Physical examination of the patient was negative. Tenderness was elicited in the region of the umbilicus on palpation; but absolutely no symptom which would indicate the side upon which the lesion was located, could be noted. The urine

at the time of admission contained $\frac{1}{2}$ per cent. of albumen, pus, blood, and had a specific gravity of 1017 with an acid reaction.

An attempt at cystoscopic examination was made by a member of the House Staff; but unsuccessfully. Exploration of the bladder by means of a sound was negative in results. Continued observation of the patient failed to give any reasonable data as to the side upon which the remaining calculus existed. Previous to the passage of the calculus from the urethra there was no ureteral colic, which would serve to indicate the side of the lesion in bladder. Segregation of the urine was not done. On May 2 I made a radiograph on a large plate so as to include both kidneys, ureters and bladder. This radiograph showed the outline of the left kidney, but not that of the right. Two distinct shadows were observed about half an inch in diameter in the kidney. One of these, the uppermost, lay one-half inch below the tip of the twelfth rib and apparently in the outer border of the kidney cortex. The other shadow was located an inch and a quarter below and one inch internal to the first and just opposite the lower portion of the body of the second lumbar vertebra and one inch external to it. No other shadows were observed in the radiograph other than those of normal parts. In these negatives the shadow of the diseased kidney is quite distinct; but the outline of the other kidney can not be made out. Hyperemia of diseased kidney would account for this difference.

On May 4 the patient was operated by Dr. F. W. Parham and through the usual lumbar incision the kidney was delivered and two stones removed. The stones were found, both of them, in the cortex of the kidney, and weighed respectively 2.2 grammes and 1.2 grammes. After removal of the stones through incision into the cortex, the wounds in the kidney were sutured, the kidney replaced and the external wound closed with gauze drainage which was removed in 48 hours. The discharge of serum subsequent to the operation was abundant. Three days after the operation discharge of urine occurred through the wound. This continued for about ten days, at which time it ceased. The external wound closed by granulation almost completely and at the time of his desertion from the Hospital there remained a very small and superficial sinus, which probably healed entirely shortly afterwards.

On the day following operation patient volunteered the statement

that he felt more comfortable than he had ever done in his life. At no time during his subsequent stay in the Hospital did he suffer the slightest pain. However, albumen in small quantities (1 per cent.) and pus was present in the urine on the fifth of June, at which time he deserted.

Case 2. This case, a well-grown white boy, aged 17, was referred to me by Dr. Martin, who had attended him previously with Dr. Watson, his family physician.

He was born in New Orleans where he lived all his life. The family history is interesting from the fact that his father has passed calculi from the urethra several times during the last 8 or ten years. The beginning of this trouble was in an attack of cystitis which followed the treatment with strong solutions of potassium permanganate. This gave intense pain and probably was the cause also of the several strictures of the urethra which existed up to a few months ago. These stones weighed from 10 to 20 grains. During last three or four months has passed 15 or 20.

The patient was always in good health with the exception of measles and intestinal troubles in early childhood. In the month of June, 1901, Dr. Watson was called to treat him for typhoid fever. The course of the disease was not unusual, but for a delayed convalescence. He was confined to the bed for seven weeks. Then was allowed to get up and was free from fever for a month. At this time (October 12, 1901), began to suffer with pain in the left side accompanied by fever of a septic type. Swelling in the left loin was noticed. The exploring needle showed a collection of pus. Dr. Martin was called in and an operation made and the pus evacuated. This perinephritic abscess did not communicate with pelvis of the kidney and no stones were observed at this time. The operation relieved the pain and fever and the case seemed to be progressing favorably when irrigation of the wound with peroxide of hydrogen occasioned pain in the bladder and subsequent urination showed that the peroxide had found its way into that viscus. Pus appeared now in the urine for the first time.

As the healing of the wound was delayed and the fever persisted, and the patient suffered now with pain on urination, Dr. Watson examined him with the X-Rays; and with the fluoroscope was able to see a shadow in the region of the kidney. Dr. Martin

assisted in the operation (April 1, 1902) which was decided upon and about one-half dozen stones were removed through the original incision which was enlarged for the purpose. These stones varied in size from that of a pea to the size of a small marble, and were located in the pelvis of the kidney. Patient improved after this operation; but as again the sinus did not heal and the septic temperature again appeared, another calculus was suspected and another operation made (June 1, 1902). This time a large T-shaped calculus was removed, made up of four smaller stones. Even after this operation, the heal of the sinus did not occur and when I first saw him was discharging pus.

The patient weighed 95 pounds and was not a difficult subject for radiographing. I was not able to detect with the fluoroscope the presence of any calculus. However, the radiographs which I made show clearly the presence of stones. These were very much plainer in the radiograph taken with the plate on the back than in the other one made under opposite conditions. The negatives at this time showed two shadows, one of them located below the middle of the twelfth rib and apparently lobulated in appearance, as if made up of several calculi or as of four calculi so placed that their outlines were in part superimposed. This mass was $1\frac{1}{2}$ inches in horizontal diameter and 1 inch in vertical diameter and lay opposite the lower border of the body of the second lumbar vertebra. Another smaller shadow was noted about $1\frac{1}{2}$ inches below and external to this one, and in a position which would indicate that it was very near the mouth of the sinus. It could not be felt with a probe, however; but a few days afterward was discharged from the wound and proved to be a phosphatic stone. Again I radiographed the patient and found the large mass still present. This has been five months ago and since then the boy has improved in health and an examination of the urine made yesterday (November 27, 1903) shows neither blood nor red blood corpuscles. However, the sinus is still discharging and we are certain that the boy has a large kidney stone. It is possible that the kidney on the left side has ceased to secrete and in consequence there is no pus or blood carried downward.

It is but fair in discussing the work done by me in the diagnosis of kidney calculus to mention a case in which I failed to show the

stone on the negative, although I knew at the time that one was present. The case was one referred by Dr. Matas and was a very corpulent patient. Dr. Kells and I spent about half a night in trying to get a satisfactory negative but in vain. I will say, however, in explanation, that it is asking too much of an X-Ray worker, to expect a perfect negative at first exposure. These cases are probably the most difficult that come for radiograph examination and often a second or third trial is necessary.

I have the record of a number of cases which I have radiographed for kidney stone; but with negative results. In these cases the subsequent course of the disease proved that no kidney stone was present. They are of interest from the standpoint of the symptomatology of renal calculus; but I do not feel justified in taking up any more of your time with a recital of their histories.

In the first case several who saw the patient ventured an opinion as to the location of the lesion; but none of these opinions were anything more than tentative diagnoses—not sufficiently grounded to warrant operative interference. That this was the case is shown by the fact that the patient was under observation for over a month before the radiograph was made, and was operated two days afterward. During this month, the service changed hands so that he had been under the observation of two sets of surgeons.

In the second case we see the X-Rays brought into use to make the original diagnosis and subsequently to prove the reformation of the stone. In this case it is questionable whether any other diagnostic agent would have given the definite information that was obtained from the radiograph.

The third case is to return in a few days for a second attempt and I have every reason to expect success.

DISCUSSION.

DR. PARHAM could not refrain from making some remarks upon this very valuable contribution to the diagnosis of renal calculi, particularly since one of the cases forming a part of the report had been under his personal care. In referring to the case reported from his hospital service he thought Dr. Guthrie had erred in stating that it was his (Dr. Parham's) impression that the stone was on the left rather than on the right side, for he did not suspect the right side

to be affected, because although there was a tenderness on both sides, it seemed to him that there was greater tenderness on the right side, along the brim of the pelvis. He did feel a little doubtful as to which kidney was involved, and it was well known that some times cases were found in which both kidneys were involved. The first examination by Dr. Guthrie showed a faint shadow, then three other skiagraphs were made, showing somewhat more distinct, and all shadows in the same position. On this evidence alone he felt justified in operating upon the right side, and whilst doing the operation he felt so satisfied with the radiographic evidence that the procedure was executed much more quickly than would have otherwise been the case. In this case he carried out the suggestions of Mr. Henry Morris; the incision was enlarged sufficiently to explore the kidney and he thought that if Dr. Martin had carried out the same plan, no stones would have been left in the kidney of his case. In his case he had explored and found a second stone outside of the pelvis of the kidney. The efficiency of the X-Ray seemed to him largely a matter of technic and he did not believe with Mr. Henry Morris that it was of little value. He thought the technic being all right the difficulty of finding stones in any case depended on two factors, first, the corpulency of the patient and, secondly, the character of the stones. He had made observations by pasting different kinds of stones on a pasteboard and examining them fluoroscopically through the body, confirming the consensus of opinion regarding the phosphatic, uric acid, carbonate and oxalate stones. Albers-Schonberg had shown that the density of calculi was in inverse ratio to their atomic weight, the phosphatic being therefore first and the carbonate last. Albers-Schonberg, whom he considered one of the leading authorities on this question, did not speak as though he considered the X-Ray an absolutely positive agent in this class of work, conceding that small, and especially uric acid stones, may easily be overlooked. He thought that where the technic was perfect and the apparatus good, a very small element of chance could be entertained in reliable radiography. Where the exposures are made at short sittings, as by Dr. Guthrie, no special risk was undergone by the patient; most cases that had been damaged by the use of the X-Ray had come from fluoroscopic examinations, where the study was of

such an enticing and entertaining character that the time of exposure was overlooked. Caldwell & Pusey, in their recent book, suggested that in making skiagraphs for renal calculi that the abdominal walls be compressed by means of an apparatus resembling in form a Lister tourniquet, thereby favoring the penetration of the ray, by thus compressing and flattening and emptying the intestines and thus shortening the distance and the density of its contents. Albers-Schonberg says that a radiograph, to be negative, should show the transverse process, the 12th rib, and the lines of the quadratus lumbarus muscles and psoas. Pusey & Caldwell used two plates in this class of cases, one superimposed upon the other, claiming that what might appear faint on one plate may show up clearer on the other, and at the same time may prove of comparative value. He thought that Dr. Guthrie's paper proved conclusively that the method was of great value in this class of work and that one was not justified in operating without having first subjected the patient to an X-Ray examination. The case should, of course, be worked out well before resorting to the X-Ray. Mr. Henry Morris said that most of his cases of pyelitis were those that had been subjected to ureteral catheterization, showing how difficult it is to avoid septic contamination of the ureters. All possible efforts should be made to arrive at a diagnosis before resorting to the X-Ray, and then use the skiagraph as confirmatory of conclusions. Very few cases would be found where at some time or other blood or pus would not have been found in the urine; therefore it is of great importance that repeated examinations of the urine should be made. There were many cases where stones were in the cortex of the kidney and he thought it absolutely wrong to operate without confirmation of the presence of the stone by means of a skiagraph. It positively locates the whereabouts of the stones and consequently shortens the time of operation. It was, in his opinion, an extremely valuable aid to the surgeon and one that should not fail to be utilized.

DR. LAZARD was interested in the case referred to by Drs. Parham and Guthrie, having given up the ward on account of change of service. The patient seemed to suffer pain in the umbilicus and would hold his right hand over that spot and lean to the right side. In consequence of this position and the nearer continuity of the

right side to the umbilicus, he thought the stone was on the right side. In defense of Mr. Henry Morris' book (2 vols., Cassell & Co.), he wished to say that it had been published three years ago and since that time great advancement had been made in the perfection of the X-Ray.

DR. WATSON believed that no surgeon should operate for renal calculi before subjecting the patient to an X-Ray examination. Though the X-Ray should not be looked upon as an absolutely sure agent in this line of work, still it was a most valuable aid in reaching a diagnosis. He had recently treated a case of renal calculi which proved of extreme interest not only to the surgeon but to the general practitioner. Six months before the boy developed the stones he was struck by a ball in the side, which caused some pain, but did not interfere with his continuance at school. Two months later he developed typhoid. It ran a normal course, but the boy did not convalesce as anticipated, but gradually developed into a septic condition, which was treated during Dr. Watson's absence for chronic malarial fever. Upon the doctor's return a perinephritic abscess was aspirated and Dr. Martin called in consultation for surgical intervention. At the first operation no stone was found and the doctor believes that the abscess was due to the typhoid bacillus. Six months after the opening and drainage of this abscess another operation was performed, at which stones were removed. Since this operation stones had been again removed and now the radiograph shows that stones are still present. He believed that the stones had been relieved in toto at each operation, but in this kidney there was a condition existing that favored the formation of stones. It was of interest to him as a general practitioner to know what to do with the case. The boy was now apparently well, except a fistula extending into the pelvis of kidney, no anemia existed and he had decided to let the case alone and wait for symptoms to develop. It was peculiar in this case that the father of this child suffered from renal calculi and was treated for cystitis and urethritis by strong injections of permanganate of potash, which resulted in a stricture that was cured by electrolysis. Since the curing of this stricture some ten or twenty stones, weighing ten to twenty grains have passed.

DR. PERKINS said that the stone that was the hardest to crush

was most easily penetrated by the ray and gave only the faintest shadow, whereas if the stone was of a spongy consistency, the greater resistance it offered to the Ray and the more distinct the shadow. In the phosphatic uric acid calculi, the latter was hard and often stones as large as the thumb would not show up in the shiagraph, whereas in the phosphatic calculi particles no bigger than the tip of the little finger could be detected.

DR. MILLER mentioned that there were now ureteral bougies made of block tin that possibly might be used for introduction into the ureteral tract when taking a skiagraph.

DR. PARHAM asked had the essayist ever used diaphragms in order to limit the field of radiographic diffusion. He asked Dr. Kells would he be kind enough to give the Society the benefit of any experience he had had in their use.

DR. KELLS said that at one time he was under the impression that diaphragms could be of great value, but after trying all forms and all sorts he had abandoned them as being absolutely of no use in his hands.

DR. GUTHRIE in closing the discussion, said that it is absolutely necessary before attempting to radiograph the kidney or other abdominal organs to clear the bowels by active purgation in conjunction with enemata and starve the patient for 24 hours previous to making the attempt.

This was essential in order to eliminate shadows of fecal matter in the bowel. He had not been in the habit of using apparatus to compress the abdominal wall; but found that by making the exposure in stages with the patient holding his breath in expiration, gave sufficient immobility. He would never make a diagnosis of kidney stone or ureteral stone unless the shadow showed in more than one negative. These negatives he habitually made two or more exposures rather than by superimposing plates, one on another. However, if celluloid films of sufficient size were available these might with advantage be exposed in the way that Dr. Parham suggested, but in his opinion if the plates were of glass the uppermost plate would prevent the passage of the X-Ray to the lower one enough to spoil the value of the second.

Dr. Guthrie used for radiographing these cases an intensifying screen which enabled him to get stronger contrast and to reduce the

time of exposure. It could not be denied that the detail of the picture suffered somewhat when the intensifying stone was used.

He had never used diaphragms, but there were many expert radiographers who believed them absolutely essential to the obtaining of a sharp negative. The rationale of their use was the same as in ordinary photography, to shut off stray rays.

Pus in the urine might have its origin in the bladder and pyelitis or ureteritis can be suspected as the cause. There could be no doubt but that a certain amount of risk attended catheterizing ureters through an infecting bladder, even if care were taken to disinfect the ureteral orifices before passing the ureteral sound. In consequence he considered the radiograph the safer procedure. However, some cases might require a combination of both; as for instance by the use of flexible, metallic ureteral sounds, either of lead or of block tin, and the radiograph made while these sounds were in situ. This technic, if adopted, would give a negative which showed the outline of the ureters and pelvis of the kidneys.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The New Year.

“Through the mad world’s scene,
We are drifting on,
To this tune, I ween,
‘They are dead and gone.’”

ANDREW LANG.

Robert Louis Stevenson wrote a little story of a miller’s son who dreamed of the world beyond his horizon and with each sunrise and sunset his spirit ached with desire to get beyond the limitations of his small life. He learned his lesson from an old man, who trudged him up one and another hill, until his little feet grew less anxious, while his brain grew more hopeful. At such elevation, the old man would ask him what he saw and ever the answer had to come, “hills” and “more hills.” ‘Will of the Mill’ Stevenson called his story and with the ending, gracefully done with a hand which must have presaged the inevitable, there is a lesson on contentment, which is little short of the beautiful. Stevenson was full of hope, though, and of the higher sort. He carries that idea even with his thoughts for children

“If I could find a higher tree
Farther and farther I should see,
To where the grownup river slips
Into the sea among the ships—
To where the roads on either hand
Lead onward into fairyland.”

This is the spirit of unrest, at the very foundation of progress and which dictates the desire to know the unknown, to elucidate the inscrutable.

Each year opens a new panorama of possibilities, and in the tracery there may be found one bit for every field of human purpose

and endeavor. So rapidly have the achievements in science succeeded one another that the average mind is like the boy's in the story, full of "more hills"; and still the traveler goes on his way, carrying with him a part, and leaving behind a part of the universe of knowledge in which all must somehow share.

The Science of Medicine has in this twentieth century well nigh attained its majority; at any rate we have earned the privilege, perhaps the right of a place in common with the more exact fields of knowledge and no day passes without an added claim to rank.

The year just passed has ushered out more than one great light, and yet a host of new workers have appeared to fill their places. The marvels of phototherapy, radium, bacteriologic discoveries, surgical advance, serum possibilities, have each arrayed themselves in the plea for the practice of Aesculapian art, and the world of medicine has been quick to respond. The germ of laziness and the prototypes of zymotic conditions have evolved and yet the maze of disease is not in an open way.

The millenium is not yet, and another decade may see the wonders of the last buried in glory of greater achievement, advancing to the consummation of unsatisfied ideals, always beckoning as they have since the world began, and every time we rest, in retrospect or anticipation of what is to come—

"The ghosts of half forgotten things
Will touch the keys with fingers numb,
The little mocking spirits come
And thrill us with their fairy wings."

The American Medical Association Meeting in June.

A year ago we were busied with the thought and prospect of the annual gathering of the National Medical body in New Orleans. We feel that this early reminder is by no means untimely for those who have thought of making the trip to Atlantic City. Many of our readers are members of only short standing, many having for the first time tasted the Attic Salt in the Medical Guild at the New Orleans meeting.

We established a record meeting and feel that the coming session should add to the glory and purpose of the A. M. A.

The Arrangements Committee have many duties and by no means of the least importance is that of providing suitable accommodations for the visiting members. Notwithstanding the multitude of hotels at Atlantic City, much time and trouble may be saved by every man intending to go to this meeting, if he will send his name early, with a statement of what sort of accommodations he wants, the price, etc., and especially whether he is to have any others with him. This should be done as soon as possible.

Aside from the pleasures which Atlantic City will afford, the meeting this year should be especially profitable to the newer members of the Southern States; a wider opportunity of gathering knowledge and especially the occasion of meeting co-workers in the arena of medicine.

The meeting is scheduled from June 7 to June 10 and at a season when every inducement should offer itself. Railroad rates will be afforded; excursions may be so arranged as to allow the visit to the larger cities of the East, all within half a day of the meeting place. More than all this, the meetings in the past have had too few men from the South. Now that in New Orleans the record was broken in this regard, we should hereafter go numerously and regularly to the meetings elsewhere.

In Regard to the *Myxococcidium Stegomyiae*.

We gladly publish the following letter, as our only purpose in speaking of the matter was to do justice to all parties concerned, without the least bias or animus. We had been on too friendly terms with Professor Beyer to have desired to be unfair to him. We had already congratulated the Working Party upon their good work and only desired to see proper recognition granted to an outsider whose assistance had been solicited.

“To the Editors of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL:

“In your issue of October, 1903, in commenting editorially on the report of the Working Party of the yellow fever institute of the U. S. Public Health and Marine Hospital Service, you say: ‘The first person to have interpreted correctly and given value to what was found in the bodies of mosquitoes infected from

yellow fever subjects, brought from Vera Cruz by the Working Party was Mr. J. C. Smith, of New Orleans. * * * His assistance was solicited by the biologist of the party who had found only 'granular bodies' in the salivary glands of the mosquitoes. These bodies were not granular but linear, several times longer than wide, and turned out to be sporozoites. Mr. Smith reported finding the parasite, sketched all the process of development, and demonstrated it to the party.' You then go on to severely censure, by implication, Dr. Parker and Prof. Beyer for withholding recognition of Mr. Smith.

"Professor Beyer is an acting assistant surgeon in the Service, and can make no publication on these matters for that reason.

"The statements you make are unjust and unfairly grounded.

"Mr. Smith makes no claim to have done or seen anything prior to January, 1903. In the summer of 1902, the Working Party discovered the parasite, not 'granular bodies' as you say, classified it, made drawings of several of its phases and sent these with a preliminary report of their work to the Surgeon-General in July, 1902. That report is of record and would doubtless be given you on application if you desire to investigate further.

"In addition to that, several qualified persons were acquainted with the discovery and its value in the summer and fall of 1902. Dr. N. Del Rio, of Vera Cruz, in a statement acknowledged before the U. S. Consul, June 8, 1903, says that as delegates of the Superior Board of Health at Vera Cruz, he, Dr. Matienza and Dr. Iglesias were in June and July, 1902, shown by Professor Beyer an animal organism in the stomach and glands of infected mosquitoes, which the members of the American Commission classified as a protozoon of the order of coccidia.

"Dr. Henry R. Carter, of the P. H. & M. H. S., in a letter of October 31, 1903, says that while attending the Public Health Convention in New Orleans, in December, 1902, he visited Prof. Beyer's laboratory at Tulane University, with several other physicians, and was shown a number of slides under the microscope. These showed sections of the stomach walls, thorax and glands of mosquitoes, and Professor Beyer claimed in all detail that each of them showed a stage of the parasite. Dr. Carter says that unquestionably at that time, Professor Beyer claimed what he had was the protozoon of yellow fever and that his slides showed the sexual stages of a coccidium.

"You will see, therefore, that months before Mr. Smith saw the slides, Professor Beyer had established his discovery, called it a coccidium, and demonstrated its sexual stages. Yet your editorial

says that Professor Beyer had 'found only granular bodies,' and that it was Mr. Smith who 'reported finding the parasite, sketched all the process of development, and demonstrated it to the party.'

"As Mr. Smith has as yet given no other 'interpretation' than that claimed by Prof. Beyer in 1902, it is difficult to see how he is the first person to have interpreted correctly and given value to what was found in the bodies of mosquitoes.

"What Mr. Smith did was in the line of corroboration, and for that he is entitled to credit. Mr. Smith is undoubtedly a man of profound scientific attainments, and his ratification was valuable; but he was neither the discoverer nor the first demonstrator of the coccidium

"Professor Beyer has repeatedly counselled that all due credit be given to Mr. Smith, and regrets keenly that his position on that point has been misstated or misconstrued.

"I respectfully suggest that you issue a word of warning against too quick a conclusion that this coccidium is the cause of yellow fever. The report of the working party apparently avoids with care such a claim. The Surgeon-General has given the press a letter pointing out that no such claim is made. This part of the investigations is inchoate. The value of the discovery of the myxococcidium *stegomia fasciata* lay in the fact that it indicated a line for future work."

"Yours very truly,

(Signed) W. H. ROBINSON.

Without going too much into details or undertaking to act as attorneys for Mr. Smith, we present in defense of our own statements extracts from letters of two persons who, under the circumstances, assuredly cannot be supposed to have a leaning towards Mr. Smith's side of the case.

The first is from that of Dr. Pothier to Dr. Wertenbaker, of the U. S. P. H. & M. H. S., who obtained for the Surgeon-General:

"We had seen, while still in Vera Cruz, two phases of the organism described in the report, one phase proved to be what is described further as the wandering spores of the parasites and the other bodies in the salivary glands, but it was not until Mr. J. C. Smith had been called by Professor Beyer, without authorization of any of the Working Party, so far as I know, that the whole life cycle of the organism was demonstrated.

"At the meetings of the commission here in New Orleans, Mr. Smith fully demonstrated the life cycle of the parasite.

"I am fully convinced that had he not done so at the time, the

parasite would not have been demonstrated by the commission, as none of us could at that time find the different phases of the cycle without the help of Mr. Smith.

“It was on this account that I refused to sign the report as no mention of Mr. Smith was made.”

The other is from a letter of Surgeon-General Wyman himself to Mr. Smith:

“Before I reached New Orleans in attendance on the meeting of the American Medical Association in May last I had no knowledge whatever of your relations with the working party. I then learned for the first time that you had met with them and that a definite promise had been made to you as to recognition, and that it was believed that no such recognition had been inserted in the report.

“The report was already in print and after your call upon me on consulting an advance copy in my possession, I found that it was true that there was no recognition of you in it. I thereupon caused the issue of the publication to be suspended to permit inquiry into the matter. I found that the recognition had been promised and determined that the promise should be kept. This involved a board of inquiry and as a result the recognition was restored in the report though it required an alteration in the printer's form to do so.”

We submit a part of our proof and our case without argument, and finally.

In our former article we also dealt only with facts and did not formulate a charge against any one in particular. We could not help stating that one of the party of three had protested against the injustice to Mr. Smith.

Now that we know further that, as a result of the official inquiry, Dr. Parker was reprimanded and reduced in numbers, we are free to add that he must have been responsible for the juggling with the phase of the report under consideration.

As far as the letter of our good friend Dr. Carter is concerned, we beg to state that it is not admissible evidence unless it be quoted in full, for we have reason to believe that some parts of it would at least give color to our statements.

Regarding the suggestion contained in the last paragraph of Mr. Robinson's letter, we need only repeat what we said when we spoke first of the coccidium, in September 1903:

“The discovery of the parasite promises to be of enormous importance to this country, especially to the South, and to medicine. We say promises to be, because we believe that the protozoa, or some positive evidence of them, must be discovered in the blood or organs of the individual suffering with yellow fever before the chain of evidence can be considered complete, also because the practical benefits of the find must yet be evolved.”

Abstracts, Extracts and Miscellany.

Department of General Surgery.

In charge of DR. F. W. PARIHAM, assisted by DR. F. LARUE, New Orleans.

A CASE OF DIABETES INSIPIDUS CURED SURGICALLY. Mr. Heresce of Bucharest (in *Revue de Chirurgie*, Aug. 10, 1903) reports to the *Société de Chirurgie* the case of a young man, aet. 15 years, who was seized with a violent pain in the left hypochondrium whilst lifting a 200 lb. weight.

The pain persisted, and on the same day micturition became more frequent. This condition continued with an increased flow of urine, amounting to 12 to 15 quarts per 24 hours. Thirst was intense.

The patient, under medical treatment for three weeks without any benefit was referred to Mr. Heresce. The latter recognizing a painful and fallen left kidney, hoped that by anchoring the ectopic organ and kneading the renal plexus and supra-renal capsule, some improvement might accrue. The result of this procedure was beyond all expectations, for on the following day the amount of urine dropped to normal and so continued, all other symptoms disappearing.

A CASE OF CEREBRAL TUMOR. Mr. Gayet (in *Revue de Chirurgie*, August 10, 1903) relates before the *Société de Chirurgie* of Lyons the case of a young woman of 30 years, with amaurosis. She had walked to the clinic and gave her own history: She complained

of a progressive dimness of vision, nigh on to total blindness. All her movements were free with slightly diminished reflexes. She suffered violent headaches, the face presenting a stupefied look. Pupils were dilated. The ophthalmoscope revealed a hazy and strangulated papilla with great edema. Diagnosis of "Cerebral Tumor" was made.

Attributing the cause of the pains and papillary edema to cerebral compression Mr. Gayet thought that beneficial effect would follow the removal of cerebro-spinal fluid. Twenty-five centilitres (about 8 oz.) of cerebro-spinal fluid were withdrawn, jetting out with great force. No relief was afforded, followed six days later by a vomiting spell; death ten days after.

At autopsy, a large tumor, the size of a mandarin, was found in the right occipital lobe. The tumor was infiltrated with blood, as if a recent hemorrhage had taken place. The tapping was probably the cause by diminishing intra-cranial tension.

Cytologically, the fluid contained only a few red blood cells which no doubt came from needle puncture.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, assisted by DR. C. J. MILLER, New Orleans.

PREMATURE LABOR AND ACCOUCHEMENT FORCE. J. Whitridge Williams contributes to *American Gynecology* (Aug. 1903) an exhaustive article on this subject in which is related the history of the operations and the results of their performance by the author.

The justifiability of the induction of premature labor is discussed under the following heads. In contracted pelves, toxemia of pregnancy and placenta previa.

In Contracted Pelves. It should be postponed as late as possible in order to afford an opportunity for the greatest possible development consistent with safe delivery.

Its advocates claim the operation is indicated in generally contracted pelves having a conjugata vera of 7.5 to 9 c. m., and in flat pelves in which the same measurements varies from 7 to 9 c. m.

Clinical experience has demonstrated that the risks are almost nil so far as the mother is concerned. Pinard and others reporting a mortality of 1.3 per cent. in 391 operations. At the same time it should be remembered that the operation is advocated solely in the interests of the child, since equally good maternal results may be obtained after delivery at term by various procedures. They must also demonstrate that it will result in saving a greater number of children. The primary fetal mortality varies from 12 to 45 per cent. This does not represent the ultimate mortality for premature children require care and skillful nursing which is not always available. Therefore the estimate must be based on the number of children who survive the first year.

Williams never thought it necessary to resort to induction of premature labor in contracted pelves. He allows his patients to go to term, fall into labor spontaneously, conducting the case under strict aseptic precautions. The patient is allowed to enter the second stage, and, if at the end of two hours, in spite of good pains, the head shows no signs of engaging, and the mother and child are in good condition and suitable surroundings, Cesarean section is at once resorted to. This is rarely necessary, as in the majority of cases the head shows signs of molding and adapts itself to the pelvic inlet, so that delivery occur spontaneously, or can be effected by high or mid forceps operation.

Toxemia of Pregnancy. Whenever one finds that the urea output is much lower than it should be, even though albumen be absent, but especially when it is present, the patient should be put to bed, placed upon rigid milk diet and rigid eliminative treatment, hot packs, etc. In the vast majority of cases the condition passes off, but in some in spite of treatment, the amount of urea falls steadily, while that of albumen increases. Then interference is demanded. In this class of cases the operation is performed solely in the interests of the mother, as the life of the premature child is frequently so seriously compromised that its chances deserve but little consideration.

Placenta Previa. Owing to the serious danger of sudden and occasionally fatal hemorrhage, as long as placenta previa exists pregnancy should be terminated as soon as possible after a positive diagnosis is made.

Methods of Inducing Labor. Only two methods universally available.

1. Krause's method (introduction of a sterile bougie into the uterus.)

2. Champetier de Ribe's balloon.

Krause's method is by all odds the simplest and is satisfactory. If time is a factor the de Ribe's bag is preferable.

Accouchement Forcé. The main indications for its performance are eclampsia, profound toxemia, accidental hemorrhage from premature separation of the placenta; placenta previa, and in cases which have fallen into labor spontaneously, but in which symptoms indicative of danger to the mother or child supervene before the cervix has become fully dilated. Generally speaking, every one must admit that the operation will be justifiable under any of the conditions just mentioned, provided it can be accomplished without seriously endangering the mother's life, but if it exposes her to any considerable danger, it should be undertaken only under the most pressing indications.

The operation is imperative in eclampsia. Dührssen, Olshausen and Zweifel showed that in their cases the convulsions ceased almost immediately after delivery in 93.75, 85 and 66 per cent. respectively.

No one disputes the justifiability of the operation in accidental hemorrhage, and the same may be said of cases of placenta previa, in which hemorrhage is endangering life.

Method of Accouchement Forcé. Those which are at our disposal and to which Williams gives choice are Champetier de Ribe's balloon, Bossi's dilator and Harris' manual method.

Williams' experience is based upon 87 cases. He employed Harris' manual method. Eclampsia 30 cases, toxemia of pregnancy 13, placenta previa 10, hastening labor 34.

Eclampsia. Seven women and twelve children died, a mortality of 23 and 40 per cent. respectively. Six of the women did not regain consciousness and died within 24 hours after delivery, so their deaths could not be attributed to method of delivery; the seventh died of infection in a cervical tear.

Toxemia of Pregnancy. It was resorted to in 13 cases after medical treatment had shown itself unavailing. Three mothers

and ten children died, a mortality of 23 and 77 per cent. respectively.

Moreover there were four deep and three slight tears, while in six the cervix was apparently uninjured. The apparently high fetal mortality will be readily understood when it is stated that in only one of the thirteen cases had pregnancy reached full term.

His experience leads him to conclude that in this class of cases pregnancy should, if possible, be terminated by the employment of the bougie or de Ribe's balloon, accouchement forcé being reserved for the exceptional cases in which danger of the onset of eclampsia appears so imminent that very rapid delivery is urgently indicated.

Placenta Previa. Ten women were delivered by accouchement forcé with three maternal and eight fetal deaths, a mortality of 30 and 80 per cent. respectively. Two of the cases would have died however treated, as they were brought into the hospital profoundly exsanguinated and died on the table, notwithstanding that they were delivered without further loss of blood. One death was attributed directly to the method of delivery—a deep cervical tear into the vagina with hemorrhage.

In 34 cases accouchement forcé was undertaken for the sake of the child or the mother in patients already fallen into labor.

The following indications were noted:

Hydramnios, pyelonephrosis, intense cystitis; danger to the fetus, as indicated by sudden change of pulse rate or prolapse of cord; very prolonged labor, as manifested by exhaustion and marked and persistent elevation in maternal pulse rate or fever. All the mothers recovered, 23 per cent. of the children perished. It appears then that accouchement forcé can be performed more safely at other times, and may be undertaken with comparative impunity when imperatively necessary.

Conclusions.—In 87 cases of accouchement, three deaths were directly attributable to the operation. One from infection, two incomplete rupture of the uterus.

There were seven others in which complete tears required immediate operation for control of hemorrhage.

Such results clearly show that the procedure is not absolutely harmless and is accompanied by a certain amount of danger,

which, however, is not so great as to preclude its employment when necessary.

One should guard against too rapid manual dilatation, better results will be obtained by prolonging the procedure (30 minutes will not be excessive in most cases).

If such serious results follow a method in which the hand can appreciate the force applied, what must one expect when a powerful dilator (as Bossi's) is employed, which is applied by a system of compound levers.

Department of the Ear, Nose and Throat.

In charge of A. W. DEROALDES, M. D., and GORDON KING, M. D.,
New Orleans.

NASO-PHARYNGEAL FIBROMA CURED BY MEANS OF GALVANO-CAUTERY.—Doctor Urbano Melzi of Milan records the case of a youth 14 years of age affected with a naso-pharyngeal fibroma about size of a walnut in which he succeeded in effecting a cure by means of the electric cautery. Resection of the inferior turbinals was first practiced with the view of removing the growth but the resulting hemorrhage was severe and it was found that the tumor grew from a large base, making its removal a serious undertaking on account of the danger of overwhelming hemorrhage. It was then decided to try bipolar electrolysis and several applications were made in the body of the tumor. Free bleeding occurred at each application and no apparent diminution in the side of the growth took place. Use of the cautery was next resorted to, the platinum point being passed through the body of the tumor close to its base and a current passed at intervals for ten minutes. This was repeated several times at subsequent sittings, and in the course of a few months the fibroma gradually diminished in size and disappeared leaving the naso-pharynx entirely free.—*Jour. Laryng., Rhin. and Otol.*, Aug., 1903.

CURE OF FACIAL SPASM BY CURETTAGE OF NASO-PHARYNX.—Case of a young lady affected with a spasmodic sniffing repeated about every two minutes except during sleep or when the patient's

attention was fixed upon some object. Examination of the nasal cavities showed the presence of a chronic rhinitis, some adenoid vegetations in the naso-pharynx were found on digital examination and chronic pharyngitis existed. The general health was excellent and the nervous system otherwise appeared unaffected. Removal of the adenoid tissue under bromide of ethyl anesthesia and treatment of the rhino-pharyngitis caused the disappearance of the spasm within fifteen days.

Cases of this nature have come under the observation of the writer, where the presence of adenoid growth in children or the irritation incident upon some intra-nasal lesion gave rise to this nervous condition, and ready relief was obtained by removal and treatment of the cause. In some cases, however, no local lesion can be assigned as the exciting cause and a thorough general examination must be made to discover the origin of the trouble, which may be a nervous reflex irritation from a distant organ.—*Archives Internat. de Laryng., etc.*, July-August, 1903.

Department of Therapeutics.

In charge of DR. J. A. STORCK, New Orleans.

QUININE AND ITS RELATION TO HEMOGLOBINURIC FEVER.—The *Therapeutic Gazette* in a leading article in the October number says:

“We are therefore much interested in a communication which was made to the Section on Medicine of the American Medical Association in New Orleans by Dr. Shropshire, of Texas, upon this subject. He also made a collective investigation, mailing 2000 blanks to various physicians with a letter requesting information in regard to this subject. It is interesting to note that only 81 physicians took the trouble to reply to these circulars. Of these, 40 could not report cases, and 41 reported 173 cases, to which Dr. Shropshire added 29 of his own, making a total of 202 cases reported by 42 observers. The opinion expressed by many of these physicians were based, however, not upon the actual number of cases but upon the opinions from treating many others of which

they had not kept records. Sixty-one of the 202 cases treated without methylen blue and practically without quinin gave a mortality of 26.2 per cent.; while in 112 cases treated with 20 grains or over, of quinin, only 14.9 per cent. had died, and 85.1 per cent. had recovered.

From these statistics it would therefore appear that the administration of quinin produces a lower death-rate than is obtained when no quinin is given, and it is also evident from Shropshire's statistics that it lessens the percentage of recurrent paroxysms. The average duration of illness of those treated without quinin is 9.66 days, and those treated with quinin five days. Of the various contributors who sent in returns, it is interesting to note that 29.4 believe quinin may and does produce hemoglobinuria, while 70.59 per cent. believe that it does not.

"The conclusions which Shropshire reaches are that hemoglobinuric fever always occurs in persons suffering from repeated attacks of malaria; that it nearly always follows one or more mild paroxysms of malaria at the proper time for the next paroxysm; that it has all the characteristics of malarial chill, fever, and sweat; that when adequate examinations of the blood are made, the parasite is always found.

"In the discussion which followed Shropshire's address, Dr. Thayer, of Baltimore, insisted upon the fact that hemoglobinuria is not a symptom of malaria. It is a condition for which malaria paves the way, and furthermore that hemoglobinuria sometimes occurs in other specific fevers. Still another fact of importance which he emphasized is that within twenty-four hours of the onset of the attack of hemoglobinuria the malarial parasite is not to be found in the blood. In other words, we think that Dr. Thayer has well summed up the subject when he says that quinin is of no more value in the treatment of hemoglobinuria due to malaria than if it be connected with such a disease as typhoid fever. Quinin is only of value in removing the primary cause of the hemoglobinuria. Therefore the practical deduction is that if the parasite is found in the blood, quinin should be given to destroy it, whereas if the parasite is not found in the blood, and the hemoglobinuria is a sequence of its presence, the quinin had better be withheld until the next onset of the malarial paroxysm is expected.

"Quinin cannot cure the hemoglobinuria; it can only prevent the next paroxysm, which may produce it a second time."

. MEDICINAL TREATMENT OF GALL-STONES.—Richardson (*Therapeutic Gazette*, November 1903) says: "Whatever may be the method by which the bile acids are reduced in quantity in gall-stone, the fact is patent that if there is a sufficient quantity of glycocholate in the bile, the cholesterin will be held in solution and gall-stones will not be formed. Austin (*Journal of Medical Research*, 1902) analyzed the biles from fistulas, the result of operations for gall-stones, when there was complete occlusion of the duct. In three analyses he obtained the following results:

	Total Solids	Mucin.	Water.	Cholalic Acid.	Cholesterin.	Lecithin.
"A"	15.28	1.66	984.7	0.061	0.278	0.710
"B"	14.19	....	985.8	0.092	0.243	0.736
"C"	10.68	1.32	986.3	0.048	0.323	trace

Showing that cholalic acid is from one-third to one-eighth of the cholesterin. While according to Hammersten and others, normal bile contains twelve to thirteen times as much cholalic acid as cholesterin. It is also worthy of note that the mucin is only one-fourth the normal amount, showing that the mucous membrane of the gall-bladder was affected.

The above analyses of Austin seems to prove conclusively that cholesterin gall-stones are the result of a deficiency of glycocholic acid.

It naturally suggests itself that the prophylaxis of gall-stones is the administration of glycocholate of soda by the mouth, since it will then be absorbed from the intestine, entering the gall-bladder from the liver, and hold the cholesterin in solution. The question as to the possibility of dissolving gall-stones in situ has recently been investigated by Vaughan Harley and Wakelin Barratt (*Journal of Physiology*, 1903). They inserted large gall-stones into the gall-bladders of healthy dogs with antiseptic precautions, and found that in periods from six months to one year the gall-stones had entirely disappeared, showing that the healthy bile of the dog is capable of dissolving cholesterin. They also inserted gall-stones into the gall-bladder, and at the same time produced cholecystitis, with the result that the gall-stones remained unaltered.

Unfortunately no analysis of the bile was made in these cases, but from the work of Herter and Wakeman and the analyses of

Austin it seems certain that in the cases where cholecystitis was produced there was a deficiency of bile acids, as in no other way is it possible to explain the solution of the stones in the normal bladder and their remaining undissolved when cholecystitis was present. From the above experiments it is evident that by the administration of glycocholate of soda it must be possible to dissolve gall-stones in the bladder, and even when cholecystitis is present glycocholate of soda is indicated not only as a prophylactic but as a solvent for stones already present, and that in those cases only in which there is occlusion of the gall-duct is surgical interference permissible.

GASTRIC NEURASTHENIA.—Blackburn, in the *N. Y. Med. Times*, recommends in the treatment of gastric neurasthenia, physical rest, specific instructions to the patient as to hours for sleep and for rest during the day and a demand that they be closely followed. Patients should be warned against over-exercising.

The Weir Mitchell rest treatment may be instituted for a time, but as a rule is not necessary in the gastric form. Hydrotherapy in the form of sponge, shower or cold douche in the morning is of service. The diet should be nourishing and non-stimulating. As to the medicinal treatment, he recommends proper elimination, the relief of constipation by a laxative containing aloes. As a tonic he recommends the syrup of hypophosphites with strychnia. One of the following combinations may be of service to relieve the constipation in such cases, as recommended by *Rev. Francaise de Med. et de Chir.*

Tinct. calumbæ, aa ʒi 4|
 ℞. Tinct. gentianæ
 Tinct. nucis vom. ʒss 2|
 M. Sig.: Twelve to fifteen drops in water before each meal; or:
 ℞. Pulv. nucis vom. gr.ʒss |03
 Ext. gentianæ gr.ʒss|09
 Pulv. gentian q. s.
 M. Ft. cap. No. I.
 Sig.: One such capsule once or twice daily.

—*Jour. Amer. Med. Ass'n.*

Miscellaneous.

THE ETIOLOGY OF YELLOW FEVER.—In a paper under this title, published in the *Journal of the Amer. Med. Ass'n.* for November, 28, 1903, Dr. James Carroll takes up the report of the U. S. Public Health and Marine Hospital Service Commission at Vera Cruz and goes to demonstrate that their work is by no means conclusive in results. He confesses that they present additional confirmatory evidence of the relation of the mosquito to yellow fever infection; the blood examinations, however, proved negative.

He notices the finding of the *Myxococcidium stegomyiæ* and thoroughly analyzes the phases and stages of the parasite as determined in the specimens preserved in Washington in conjunction with the report of the Commission.

His conclusions are most interesting:

“To establish, if possible, the connection between over-ripe fruits and the presence of these bodies in mosquitoes, I obtained some *Stegomyiæ* through the courtesy of Dr. Edmond Souchon, of New Orleans, and Dr. L. O. Howard, of the U. S. Department of Agriculture, the latter kindly supplying me with fifty living insects, a large number of eggs and some insects preserved in alcohol. Fusiform yeast cells were found in the diverticula of a very small proportion of those that were received in alcohol. An ellipsoid wild yeast was then isolated from an old banana and insects were subsequently fed on the fermenting fruit, to which this yeast in pure culture had been added. Previous sterilization of the banana was not considered necessary. As a result, I have brought about the presence of bodies identical in appearance with the fusiform stage of the so-called *Myxococcidium stegomyiæ* in nearly fifty insects that have never been in contact with a case of yellow fever, and have demonstrated them in large numbers, in the diverticula of four *male* insects that have been hatched and reared in the laboratory of the surgeon-general's office in Washington. I have been able to demonstrate the passage of these organisms from the ventral diverticulum through the natural opening of communication to the esophagus and thence to the stomach, where they are found only in the upper part of the organ, and are absent from the blood mass below, which is of large size and

recently ingested. I have obtained in one instance as the result of feeding a male insect on wild yeast and banana, sections which show these organisms among the muscular tissues of the thorax, many of them lying in close proximity to the gland. Several insects similarly treated show the same bodies in the stomach and diverticula. They have not been found in fifty-two *Stegomyia*e fed on yellow fever patients and kept under my immediate charge, a number of them having been used in reproducing the disease. Many of these mosquitoes that were kept for inoculation purposes died in the jars and are poorly preserved, but a number were killed and preserved immediately. The state of preservation of the insect, however, does not materially affect the staining properties of the blastomycetes, for in non-infected insects that have died in the jars and are crowded with bacteria, they color brilliantly and sharply. This would seem to indicate that they still retain their vitality after the death of the mosquito containing them.

“Dr. L. O. Howard informs me that Dr. J. W. Duprée, of Baton Rouge, La., writes him that he also finds the ‘*Myxococcidium stegomyiae*’ in non-infected mosquitoes at Baton Rouge.

“Indirect confirmation of my results is seen in the report cited, where it is stated that the parasite was not found in *Stegomyia*e that had been applied to a malignant case of malarial fever and were then fed on blood sugar and water. If a sufficient number of insects had been used and they had been fed on over-ripe banana or other fruit, as the working party recommends for yellow fever mosquitoes, the supposed animal parasites would in all probability have been demonstrated.

“On close examination of the liberated sporoblasts (?) shown in Figures 25 and 26 of the report referred to, it will be seen that these bodies show the variations in size and form and the typical budding process of yeast cells. This is particularly well marked in the left central and lower portions of Figure 26.

“That ellipsoid wild yeasts may be pathogenic for the lower animals is shown by the researches of Rabinowitch, who states also that these cells are stained by all the usual anilin colors. In the course of my own observations it has been found that typical ellipsoid forms in one of the mosquitoes were stained equally well with eosin, Bismarck brown, hematoxylin and by Gram’s method.

“ Similar forms of blastomycetes have already been isolated from the broken-down nodules of spurious glanders, and the statement is made by Italian investigators that several parasites which are classified under the sarco or micro-sporidia belong really to the blastomycetes.

“ As the yeasts are universally disseminated in Nature (and there are many species of them, only a relatively small number being pathogenic), it is not surprising that experiments with a single species have failed to show positive evidences of invasion of the tissues of the insect. This was obtained by the working party of the Marine Hospital Service in only a few instances, and is obviously of no importance from the point of view of the etiology of yellow fever. On the other hand, it is regarded as of the greatest importance that bodies identical with the fusiform stage of this supposed protozoon, the only form found to be constantly present, can be easily reproduced anywhere by feeding to mosquitoes a culture of an ellipsoid yeast.

“ The results of the observations here recorded are believed to justify the following conclusions:

“ 1. The fusiform stage of the so-called *Myxococcidium stegomyiae* of Parker, Beyer and Pothier (1903), is not connected in any way with the transmission of yellow fever.

“ 2. This organism appears to be not a protozoon parasite, but a yeast fungus. In its fusiform stage, the only form in which it was constantly present, it shows the characteristic budding, staining affinities and vacuolation or spore formation of a blastomyces, and it is found with considerable regularity in both male and female mosquitoes that have purposely been fed on over-ripe bananas to which a pure culture of a wild yeast had been added in the laboratory.

“ 3. The organism has not hitherto been found in repeated examinations of mosquitoes of the genus *Stegomyia* that have bitten yellow fever patients in the early stages of the disease, when such insects had been fed only on blood, dry sugar and water. This statement applies also to mosquitoes that are known to have reproduced the disease in human beings.”

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary, 163 University Place,
New Orleans.

NEXT MEETING, NEW ORLEANS, LA., MAY 10, 11, 12, 1904.

OFFICERS—President, Dr. J. M. Barrier, Delhi; 1st Vice President, Dr. L. G. LeBeuf, New Orleans; 2nd Vice President, Dr. F. J. Mayer, Scott; 3rd Vice President, Dr. Oscar Dowling, Shreveport; Secretary, Dr. Wm. M. Perkins, New Orleans; Treasurer, Dr. M. H. McGuire, New Orleans.

COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St Charles St., New Orleans; S. L. Williams, Sec'y, 5th Cong. Dist., Oak Ridge; J. F. Buquoi, 1st Cong. Dist., Point-a-la-Hache; F. R. Tolson, 3d Cong. Dist., Lafayette; N. K. Vance, 4th Cong. Dist., Shreveport; C. M. Sitman, 6th Cong. Dist., Greensburg; C. A. Gardiner, 7th Cong. Dist., Bristol.

Chairman Committee on Arrangement, Dr. L. G. LeBeuf, New Orleans, La.

LAFAYETTE WILL NOT HAVE THE STATE MEDICAL SOCIETY MEETING FOR 1904.

While desirous to have the meeting of the State Medical Society held in Lafayette and while at the time the meeting was decided upon the profession of that town expected new buildings to be erected to accommodate the gathering, a combination of various circumstances has led to their decision to ask the meeting to take place elsewhere. This was done with some regret, as it was hoped that the meeting in Lafayette would organize the profession in Western and Southwestern Louisiana. Realizing, however, that the meeting would probably be larger than ever, and that Lafayette at best would be ill-prepared, the president of the State Society requested the New Orleans section of the State Society to take the matter in hand at this time.

Accordingly a called meeting of the Orleans Parish Medical Society was held on December 23, and it was decided to invite the State Society to meet in New Orleans, at a date to be agreed upon, in the month of May.

Dr. L. G. LeBeuf was unanimously elected Chairman of the Committee of arrangements and the President was notified of the action of the Society.

THE FOLLOWING PARISHES HAVE BEEN CHARTERED SINCE PUBLICATION IN DECEMBER JOURNAL.

OUACHITA PARISH MEDICAL SOCIETY.—Organized Oct. 17, 1903. Chartered Nov. 24, 1903. Charter members 11. President, Dr. W. B. Miller, Fourche; Vice President, Dr. W. E. Pugh, ———;

Secretary-Treasurer, Dr. R. W. O'Donnell, Monroe. The following also signed as Charter Members: Drs. E. C. Calvert, Monroe; Henry D. Catlett, West Monroe; R. W. Faulk, Monroe; C. W. Hilton, Monroe; M. A. McHenry, Monroe; G. F. Surghnor, Monroe; J. A. Thomas, Monroe; E. L. Wright, Bosco.

ACADIA PARISH MEDICAL SOCIETY.—Organized Oct. 29, 1903. Chartered Nov. 26, 1903. Charter Members, 14. President, Dr. J. P. Mauboules, Rayne; Vice President, Dr. M. L. Hoffpauir, Crowley; Secretary-Treasurer, Dr. R. B. Raney, Crowley. Following also signed as Charter Members: Drs. Carroll W. Allen, L. B. Arceneaux, Church Point; L. A. Clark, Iota; E. M. Ellis, Crowley; W. T. Ellison, D. D. Mims, Crowley; George C. Mouton, Rayne; W. T. Patterson, L. C. Pulliam, S. T. Pulliam, E. L. Watson, H. C. Webb, Crowley. Meets second Wednesday of January, April, July and October.

ST. MARY PARISH MEDICAL SOCIETY.—Organized Oct. 24, 1903. Chartered Dec. 22, 1903. President Dr. S. J. Gates, Franklin; Vice President, Dr. W. J. McClellan, Morgan City; Secretary-Treasurer, Dr. G. A. Sigur, Glencoe. Following are also Charter Members: Drs. L. F. Pecot, Charenton; T. E. Dreher, Morgan City; Beverly W. Smith, Franklin; Otto Braun, Morgan City; W. D. Roussel, Patterson; J. C. Berwick, Berwick. Charter members, 9.

REPORTS OF DECEMBER MEETINGS.

THE ST. JAMES PARISH MEDICAL SOCIETY held its annual meeting on December 10. Eight of the fourteen members were present. A very interesting paper on "Malarial Hematuria" was read by Dr. J. E. Doussan, of Lutcher; Dr. B. A. Colomb, of Union, exhibited a well-marked case of exophthalmic Goitre. Dr. J. F. Buquoi, of Colomb, reported a case of "Osteomyelitis of the tibia in a three-year old child." After adjournment the members fraternized over a sumptuous luncheon at the Convent Hotel.

THE SHREVEPORT MEDICAL SOCIETY held its annual election of officers (date not reported). Dr. Reisor presided, and 25 members were present. Dr. Schumpert read an interesting and instructive paper on "Spinal Anesthesia," which was discussed by Drs. Sutherlin and R. A. Gray. The following officers were unanimously

elected: President, Dr. N. K. Vance; Vice President, Dr. Oscar Dowling; Recording Secretary, Dr. T. D. Boaz; Corresponding Secretary, Dr. W. E. Hawkins; Treasurer, Dr. G. C. Chandler.

THE ORLEANS PARISH MEDICAL SOCIETY held its annual election and received the report of its Committee on Hospital Abuse at the regular meeting, December 12. Following officers were elected for 1904: President, Dr. M. J. Magruder; First Vice President, Dr. J. A. Storek; Second Vice President, Dr. William M. Perkins; Third Vice President, Dr. O. Joachim; Secretary, Dr. S. M. D. Clark; Treasurer, Dr. E. H. Huhner; Librarian, Dr. Homer Dupuy; Additional members Board of Directors, Drs. E. J. Graner, E. H. Walet and M. M. Lowe.

ANNOUNCEMENTS FOR JANUARY MEETINGS.

THE ASCENSION PARISH MEDICAL SOCIETY will meet at the Ascension Club, in Donaldsonville, at noon, January 13. The printed program which has been issued attractively sets forth the following Subject for Discussion, "Influenza;" prepared by Dr. R. W. Collins; opening of discussion by Dr. T. H. Hanson; general discussion. Adjournment to Nicholls Hotel at 2 p. m., where the program will be continued as follows: Subject for Digestion, Dinner; prepared by F. Rogge. Opening for Digestion, Dr. Stomach; general discussion. The entertainment committee is as follows: Drs. Wm. M. McGaillard, E. K. Sims, Paul T. Thibodaux.

THE FELICIANA MEDICAL SOCIETY will meet at Jackson on Tuesday, January 12, at 11 a. m. The subject for general discussion will be "Pneumonia and its Treatment." A cordial invitation is extended to all physicians to attend.

THE ORLEANS PARISH MEDICAL SOCIETY will hold its inaugural meeting on Saturday, January 9. Following program is announced: Reports of Retiring Officers and Standing Committees for 1903; installation of Officers; announcement of Standing Committees for 1904; annual address by Rev. Beverley Warner; refreshments.

THE ST. MARY PARISH MEDICAL SOCIETY will elect officers for 1904 at Franklin on Tuesday, January 12, at noon. It

is hoped that the duly qualified physicians of the Parish who have not yet joined will do so. Some of them who are members of the State Medical Society have so far failed to join the local Society. As it is not thought likely that they wish to drop out of the State Society, they will probably be heard from by the January meeting.

THE TANGIPAHOA PARISH MEDICAL SOCIETY.—The Annual Meeting will be held at Amite City, in the Woodman Opera House, January 13, at 2 P. M. The physicians of Tangipahoa Parish are hereby invited to attend and join, and those already members are urged to bring other physicians who have not yet joined.

THE TERREBONNE PARISH MEDICAL SOCIETY will meet January 15, at 8:30. No program announced.

THE TRI-PARISH MEDICAL SOCIETY (Claiborne, Webster and Bienville) will meet at Homer, January 14. A new Constitution will be adopted and the application for a Charter from the State Society will probably be made immediately thereafter. Officers for 1904 will be elected at this meeting and all members are urged to be present. The scientific program for this meeting was announced in the November JOURNAL.

THE WEST BATON ROUGE PARISH MEDICAL SOCIETY will hold its regular meeting on Thursday, January 7. No program announced.

CHANGES OF ADDRESSES.—Dr. J. C. Willis, of Homer, will move to Shreveport on January 1. He will be associated with Dr. Selby, in the Jacobs building.

Dr. J. D. Calhoun, of Arizona, La., and his son, Dr. J. C. Calhoun, of Mansfield, La., will move to Homer in January.

Dr. M. W. Levert will move on January 1 from Bordelonville, Avoyelles Parish, to Marks P. O., West Baton Rouge Parish.

Dr. E. R. Gandy has recently moved from Lake Charles to West Lake, Calcasieu Parish.

Dr. H. L. Allison has moved from Bayou La Chute to Caspiana, Caddo Parish.

Dr. J. J. Bland has removed from New Orleans to Ocean Springs, Miss.

Dr. R. W. Seay, has permanently removed from New Orleans to Grand Isle, Jefferson Parish.

Dr. L. G. Wille is now permanently located in New Braunfels, Texas, and resigns membership in the Louisiana State Medical Society in consequence.

THE STATE BOARD OF MEDICAL EXAMINERS, through its President, Dr. A. F. Barrow, asks that this Department call the Society's attention to the fact that unless some change is made in the dates for our Annual Meeting in May, there will be conflict of schedules which will effectually prevent the members of the Board from appearing before the Society. It is especially desirable to prevent this, as one of the most important steps taken by the Society at its last meeting was the appointment of a Committee on State Medical Law to whom was entrusted the duty of bringing before the Society some plan for the better protection of this State through a more efficient medical law. The date has been changed, as a glance at the heading of the Notes will show.

[*Corrections of omissions and errors in December number.*—The Secretary of the Sabine Parish Medical Society is Dr. D. H. Dillon. The President of the Feliciana Medical Society is Dr. S. L. Singletary, of Wilson; Dr. E. L. Irwin, of Clinton, is a Charter member. The Assumption Parish Medical Society was chartered Nov. 7, 1903; Dr. E. W. Bourg, of Labadieville, is a Charter member. Lafourche Parish Medical Society was organized Oct. 21, 1903; Drs. H. Dansereau, of Thibodaux, and J. J. Ayo, of Bowie, are Charter members. Dr. L. M. Provosty, of New Roads, is Secretary-Treasurer of the Pointe Coupee Parish Medical Society.]

Medical News Items.

NEW OFFICERS OF ORLEANS PARISH MEDICAL SOCIETY.—At the regular Annual Election of the Orleans Parish Medical Society, held December 12, 1903, the following officers were elected for 1904:

President, Dr. M. J. Magruder; First Vice President, Dr. J. A. Storck; Second Vice President, Dr. Wm. M. Perkins; Third Vice President, Dr. O. Joachim; Secretary, Dr. S. M. D. Clark;

Treasurer, Dr. E. J. Huhner; Librarian, Dr. Homer Dupuy; Additional Members Board of Directors, Drs. E. J. Graner, E. H. Walet and M. M. Lowe.

DIED.—Dr. Thomas J. Buffington, on November 26, 1903. The *Baton Rouge Advocate* says of this nestor of the Louisiana profession:

“Baton Rouge has lost no truer, more charitable or beloved citizen in a quarter of a century than he. For more than fifty years he has been physician, counsellor and friend to the sick, the distressed and the afflicted of this city and parish. There is scarcely a household or home in the entire section that has not enjoyed the benefit of his tender, faithful, blessed ministrations. He was always kind, gentle, faithful, full of charity and generous to a fault. In his heart there was no guile and duty was the watchword of his life. He served gallantly as a Confederate soldier. He honored parish and State as Senator. He was the faithful and successful health officer of the city for many years. He was a devoted father, a loving and true husband and friendship knew no worthier devotee than he. In the sick room his presence inspired confidence and hope and even when the shadow of death hovered around the bedside of those entrusted to his charge, he yet whispered words of cheer and consolation to the loved ones in distress.

“Dr. Buffington was a straightforward, plain-spoken, honest and honorable man. He had been spared to family and friends for nearly eighty-three years. His life was a benediction to them and to all who knew him. His declining years were brightened and blest by the tender ministrations of a true and devoted wife.”

The *JOURNAL* extends heartfelt sympathy to those of his family who survive him and we add just a word, that in the corner-stone of higher medicine in Louisiana Dr. Buffington has left the memory of his good work.

PERSONAL.—Dr. J. G. Evans has moved from Haynesville, La., to Farmerville.

DIED.—Dr. Cyrus Edson, so long identified with the New York Health Board, died December 2, of heart-failure, consequent upon an attack of pneumonia.

LANCET-CLINIC CHANGES HANDS.—In the November issue of the *Cincinnati Lancet-Clinic* the editor announces that the journal

has been sold to a joint stock company, composed entirely of physicians. The *Lancet-Clinic* is one of the oldest and best journals we have among our exchanges and we trust that the change in management means no change in policy or of style, both of which have made a standard for themselves. We wish the new administration the best of success.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION has elected the following officers for the ensuing year: President, Floyd W. McRae, Atlanta; First Vice President, George S. Brown, Birmingham, Ala.; Second Vice President, J. Shelton Horsley, Richmond, Va.; Treasurer, Charles M. Rosser, Dallas, Tex.; Secretary, W. D. Haggard, Nashville, Tenn.

Dr. Richard Douglas, of Nashville, and J. Wesley Bovée, of Washington, were named to fill vacancies on the Board of the Council.

Birmingham, Ala., was chosen as the place of holding the convention next December. Dallas, Tex., had bid for the meeting, but as the statue of W. E. B. Davis, founder of the organization, is to be unveiled at Birmingham, it was decided to hold the convention there.

THE CHARITY HOSPITAL TRAINING SCHOOL FOR NURSES HELD ITS COMMENCEMENT Exercises on December 11. There were twenty graduates, and the exercises consisted in a brief talk by Dr. Ernest S. Lewis, Vice-President of the Hospital, and reports from the House Surgeon and the Superintendent.

THE SHREVEPORT SANITARIUM AND TRAINING SCHOOL FOR NURSES GRADUATED four of its class on December 17. The occasion was made one of festivity and, besides perfunctory addresses, there were music and refreshments.

DIED.—Dr. J. B. Duchain, aged 75 years, of pneumonia, at his home in Baton Rouge, La., on December 11.

Dr. Thos. J. Tabor, died at Doyline, La., December 17, 1903. The remains were interred at Minden.

THE SEVENTH INTERNATIONAL CONGRESS OF OTOTOLOGY will meet in Bordeaux on August 1 to 4, 1904. The official languages will be French, English, German and Italian. The subscription, entitling to a copy of the transactions, is \$5.00, to be paid to the treasurer, Dr. Lannois, of Lyons.

The Lenval prize for the most marked improvement in the practical treatment of auditory affections or for the invention of the best easily portable apparatus designed to improve the hearing of the deaf, will be awarded at this congress. Those desiring to compete are requested to present their claims through Dr. E. J. Moure, president of the organization committee, Bordeaux.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

A Text-Book of Operative Surgery, by WARREN STONE BICKHAM, PHAR. M., M. D. W. B. Saunders & Co., Philadelphia, New York and London, 1903.

It is with pleasure and a certain amount of local pride that we submit to the readers of the JOURNAL our comments on the recent book presented to the medical world by our friend Dr. Warren Stone Bickham.

One has but to glance at the contents to see what tremendous energy and work was expended by the author.

The classification of the subject is quite systematic, affording the reader a quick and easy reference on any point, in Operative Surgery, he may desire information.

The numerous illustrations, mostly original, are very fine and comprehensive. We have particularly noted those relating to amputations, to intestinal surgery, etc.

It is in the text, however, where the real merit of the book lies.

The author has clearly described the different operative procedures in his complete and exhaustive work, going fully into every detail of all the

operations, which the surgeon of to-day is called upon to perform.

The book is neatly bound; the paper is of the best and the type is large and easily read.

We, his professional brethren of this State, and particularly of New Orleans, should feel proud at the appearance of this splendid treatise by our erstwhile citizen, now a resident of New York City.

LARUE.

Text-Book of Clinical Anatomy, by DANIEL N. EISENDRATH, A. B., M. D.
Published by W. B. Saunders & Co., 1903.

This book is certainly, as it is said in the frontispiece, beautifully illustrated. It shows that the author has kept to his idea of presenting a purely Clinical book of Anatomy. The text reads well; it will be found useful to students of advanced grade, also to practitioners of medicine.

LARUE.

A Thesaurus of Medical Words and Phrases, by WILFRED M. BARTON, M. D., and WALTER A. WELLS, M. D. W. B. Saunders & Co., Philadelphia, New York, London, 1903.

This work is the only Medical Thesaurus ever published. It performs for medical literature the same services which Roget's work has done for literature in general; that is, instead of, as an ordinary dictionary does, supplying the meaning to given words, it reverses the process, and when the meaning or idea is in the mind, it endeavors to supply the fitting term or phrase to express that idea. To obviate constant reference to a lexicon to discover the meaning of terms, brief definitions have been given before each word. As a dictionary is of service to those who need assistance in interpreting the expressed thought of others, the Thesaurus is intended to assist those who have to write or to speak to give proper expression to their own thoughts. In order to enhance the practical application of the book cross references from one caption to another have been introduced, and terms inserted in under more than one caption when the nature of the term permitted. In the matter of synonyms of technical words the authors have performed for medical science a service never before attempted. Writers and speakers desiring to avoid unpleasant repetition of words will find this feature of the work of invaluable service. Indeed, this Thesaurus of medical terms and phases will be found of inestimable value to all persons who are called upon to state or explain any subject in the technical language of medicine.

E. M. D.

The Medicine Volume of Saunderson's American Year-Book for 1903. A yearly Digest of Scientific Progress and Authoritative Opinions in all branches of Medicine, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged with editorial comments by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A. M., M. D. W. B. Saunders & Co., Philadelphia, New York, London, 1903.

This volume, an octavo of 700 pages with 4 beautiful plates and excellent text-cuts, includes General Medicine and all other branches of Medicine. We do not know of any similar publication, either American or foreign,

than can compete in any way with this excellent year-book. It is not an indiscriminate collection of extracts clipped from any and every journal; the matter is carefully selected, edited, and in numerous cases commented upon by the eminent authorities whom Dr. Gould has enlisted as his assistants. Every new theory and scientific discovery worthy of the consideration of the profession has found a place in this unusually complete year-book; and the names of the several editors are sufficient guarantee of a proper discrimination. We strongly recommend this work as the best of its kind on the market.

E. M. D.

Publications Received.

P. Blakiston's Son & Co., Philadelphia, 1903.

Mammalian Anatomy with Special Reference to the Cat, by Alvin Davison, Ph. D.

Quiz Compend. Diseases of the Ear, Nose and Throat, by John Johnson Kyle, B. S., M. D.

E. B. Treat & Co., New York, 1903.

Diseases of Metabolism and Nutrition, by Prof. Dr. Carl Von Noorden.

Lea Bros. & Co., Philadelphia and New York, 1903.

The Medical Epitome Series, Normal Histology, by John R. Withen, A. B., M. D.

Miscellaneous.

Joint Resolution Inviting the Republic of Cuba to Become a State of the American Union, Hon. Francis G. Newlands, of Nevada.

A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa, by George Whitfield Overall, A. B., M. D.

Transactions of the American Surgical Association, Vol. 21, Ed. by Richard Harte, M. D.

The Antiseptic and Germicidal Properties of Glycerin, by M. J. Roseman, M. D., Memorial Hospital, Richmond, Va.

The Johns-Hopkins Hospital Reports.

Tuberculosis of the Female Genitalia and Peritonium, by John B. Murphy, A. M., M. D.

Annual Report of the Health Department of the City of Louisville, Ky., for the Fiscal Year Ending August 31, 1903.

Clinical Talks on Minor Surgery, by James G. Mumford, M. D.

Illinois State Board of Health; Reprint on Medical Education and Official Register of Legally Qualified Physicians.

Reprints.

Some Recent Advances in Medical Therapeutics, by Thomas E. Satterthwaite, M. D.

The World is Idea, by Herman Gasser, M. D.

Aneurysm of the Transverse Arch, with Obliteration of the Innominate and Left Common Carotid Arteries, by U. S. Bird, M. D.

A Table of Ocular Extrinsic Paralysis; The Use of a Mydriatic After the Age of Forty-five, by Horace M. Starkey, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR NOVEMBER, 1903.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	2		2
Intermittent Fever (Malarial Cachexia)	3	7	10
Small Pox.....			
Measles.....			
Scarlet Fever	3		3
Whooping Cough.....	1		1
Diphtheria and Croup.....	4	2	6
Influenza	5	1	6
Cholera Nostras.....			
Pyemia and Septicemia	3	3	6
Tuberculosis.....	43	43	86
Cancer.....	14	7	21
Rheumatism and Gout			
Diabetes	2	1	3
Alcoholism	2		2
Encephalitis and Meningitis.....	6	1	7
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	12	10	22
Paralysis	4	1	5
Convulsions of Infants	4	1	5
Other Diseases of Infancy	6	10	16
Tetanus	5	10	15
Other Nervous Diseases	1		1
Heart Diseases.....	39	33	72
Bronchitis	10	5	15
Pneumonia and Broncho Pneumonia.....	27	18	45
Other Respiratory Diseases.....	3	1	4
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach			
Diarrhea, Dysentery and Enteritis.....	24	12	36
Hernia, Intestinal Obstruction.....	2	3	5
Cirrhosis of Liver.....	3	4	7
Other Diseases of the Liver	3	3	6
Simple Peritonitis	3		3
Appendicitis.....	2		2
Bright's Disease	36	19	55
Other Genito-Urinary Diseases.....	5	2	7
Puerperal Diseases	2	7	9
Senile Debility	21	13	34
Suicide	4		4
Injuries.....	17	26	43
All Other Causes.....	39	13	52
TOTAL	362	256	618

Still-born Children—White, 24; colored, 25; total, 49.

Population of City (estimated)—White, 227,000; colored, 83,000; total, 310,000.

Death Rate per 1000 per annum for Month—White 19.13; colored, 37.01; total, 23.92.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure	30.12
Mean temperature	59.
Total precipitation	0.18 inches.
Prevailing direction of wind, north	

New Orleans Medical and Surgical Journal.

VOL. LVI.

FEBRUARY, 1904.

No. 8.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

Some Observations on the Anatomy, Physiology and Repair of the Pelvic Floor.

By GEO. H. LEE, M. D., Galveston.

To obtain the ideal result in repairing lesions of the pelvic floor, it is necessary to restore the normal anatomy and to bring about a return of the natural functions. This result has been placed within the reach of the modern operator, by the stages of development which has come through the genius of Emmet, Simon, Hegar, Tait, Kelly and others, who have done original work in one direction, or in another, elucidating this detail and establishing that principle. It is our privilege to draw fully and freely from these rich developments and in the present paper, for the sake of brevity, and in order to get the central thoughts quickly and clearly before you, any attempt to give credit to this or that authority, will be avoided.

Repair of injuries to the pelvic floor at the present time should include careful attention to the following requisitions:

First—Restoration of the normal anatomy of the parts which have been injured.

Second—As consequent, a return to normal function.

Third—The protection of the field of operation and of the parts which it is necessary to unite by flaps in the vagina and where the rectum is involved in the injury, by a similar rectal flap, from infection by the vaginal and rectal discharges.

Fourth—The sutures should be arranged—

A. So as to approximate anatomical structures in their normal relation.

B. To leave no dead space for the accumulation of clots.

C. Only absorbable suture material should be used.

D. The fewest number of sutures should be used, compatible with nice approximation.

E. The sutures should not pass through the skin or mucous membrane, where this can be avoided.

Only brief reference will be made to the anatomy. Passing the fascia, upon which much stress was laid by earlier operators, and which is of importance, yet can be in a measure disregarded, for the reason that it is necessarily restored to its normal relation by the same approximation that replaces the muscles, and the muscles can be accepted as surgical guides to the anatomy of the perineal fascia, the superficial group of muscles, viz: the external sphincter ani, the superficial transversus perinei and the sphincter vaginae, joining at a common point between the anus and the vulvar opening, constitute the important external support of the pelvic floor and are lacerated in labor most frequently along natural lines of cleavage, through the fourchette back to, or into, the rectum, or at one or the other side of the rectum. The deep transverse perineal muscles, the analogues of the constrictor urethrae in the male, are inserted into the same common point on a deeper plane and also have fibers that blend with the vaginal walls and others that pass along the side of the vagina to cross the urethra. The levator ani is inserted in its posterior 2-3 to 3-4 into the sides of the rectum, blending with the sphincters of that viscus, while the anterior fibers pass around the posterior wall of the vagina blending with each other to form a support to that canal. These

muscle structures constitute the important anatomy of the pelvic floor and are the anatomical structures which must be borne in mind, must be sought for and brought together in nice approximation in order to accomplish the restoration to normal function.

The function of the anterior portion of the levator ani and deep transversus perinei is to give tonicity and support to the posterior wall of the vagina, converting that organ into a canal in the nulliparous woman, as can be very easily observed by introducing the finger into the vagina and making a little pressure upon the posterior wall, in such a way as to excite contraction of these muscle fibers. In addition the anterior fibers of the levator ani perform another important function, by reason of their insertion into the point commonly known as the perineal body, which function is to draw up that portion of the floor of the pelvis in a similar manner and at the same time as the posterior fibers elevate the rectum and the sphincters of this viscus.

The important point, physiologically, in the pelvic floor is the point ordinarily spoken of as the perineal body, which really constitutes the junction of the various muscle structures we have just been mentioning. The function of this point of junction is not only to support the whole pelvic floor, but also to make a point or plane of resistance to peristaltic action. The curve of the rectum following the hollow of the sacrum tends to throw the force of the peristaltic wave directly against the anterior wall of the rectum just within the internal sphincter and tends to roll outwards the anterior wall, when the integrity of the perineal body, *i. e.* the point of junction of the various muscle structures, has been interfered with by injury. The resistance to this force is furnished normally by the junction of the vaginal sphincter with the external sphincter of the anus and with the transversus perinei muscles and the further union with the fibers of the deep transversus perinei muscles and with the anterior fibers from the levator ani.

Reference to the internal sphincter of the rectum has been omitted up to this point, for the reason that the effect of injury to or rupture of this muscle is directly in contrast with that of injury to other muscles of this region.

The laceration of the perineal body either to or through the external sphincter, without involving the internal sphincter, is

followed by the formation of a rectocele and the dragging down of the internal pelvic viscera; while if the internal sphincter is also lacerated, the patient loses control over the evacuations but the tendency to the formation of rectocele and to prolapse of the pelvic viscera is not present.

The further important function which is under the control and dependent upon the junction of the group of muscles in the perineal body, is the function of defecation. This act beginning in the peristaltic wave from above and being assisted by the voluntary compression of the abdominal muscles, is further produced by a dragging upward of the rectum and the sphincters, the result of contraction of the fibers of the levator ani; the sphincter muscles being pulled open and peeled back as it were. When the point of junction of the muscles in the perineal body has been destroyed, the result must be only partial and incomplete action of the levator ani and unsatisfactory emptying of the rectum.

It is considered unnecessary to discuss further the results of these injuries upon the pelvic viscera, such as dragging down of the bladder, interference with micturition etc., the purpose being to select rather the more important features of disturbance of function with the idea of illustrating the observations which follow upon the methods of repair.

It is impossible to adopt any well defined or fixed rules in regard to the technic of the repair of lacerations of the perineum, other than such general principles as have been already suggested. Each case of injury is a law unto itself and the operation which will accomplish the purpose desired will have to be carefully adapted to the particular case. As illustrating the application of the principles which have been suggested and the technic of the general principles which would be utilized, the three different characters of lacerations will be selected, viz:

First—A laceration of the perineal body involving all of the structures down to the anal sphincters. This technic will apply similarly to lacerations of lesser degree.

Second—Lacerations including the sphincters of the bowel.

Third—A condition which is known as relaxation of the vagina and vulva and consisting not of injuries to mucous membrane or skin, but of the separation of the deeper structures during repeated labors.

In the first class of lacerations the initial incision should be made as a rule at the anterior margin, that is the external margin of the cicatrix, marking the extent of the laceration and at a point about the middle of the laceration, in the middle line of what would be the perineum. The incision should extend from this point along the margin of the cicatricial tissue up each labium to and above the last remaining myrtiform caruncle; in other words this incision should follow approximately the line of Tait in his initiatory incision, except that more attention should be paid in the usual cases to following the line of the margin of the cicatrix. In the unusual cases such an incision might invade the outer surface of the labium to too great extent; such cases for instance as in which there had been sloughing of the perineum and labium with loss of tissue, rather than simple separation of the parts. The incision should extend upwards on each side to the lowest remaining myrtiform caruncle, or even just a little higher always and should not be to the outer side of these structures, but end within these structures. This flap should be dissected from the vaginal floor with the scissors and finger, taking only the mucous membrane, which can be easily peeled up and should be separated from the tissues as high up in the vagina as the relaxation of the posterior vaginal wall seems to extend.

Comparatively little hemorrhage will be encountered and very little use be had for either knife or scissors. The tissues exposed will be on each side immediately within the labia, the sphincter vaginae superficially, with at their lower extremities the divided ends of the transversus perinei; more deep and careful dissection would demonstrate the deep transversus parinei and the anterior fibers of the levator ani. Such minute dissection however, is not necessary in the ordinary operation. The first sutures where there is much relaxation of the vagina, should be placed high up underneath the vaginal flap in such a way as to catch on each side the anterior fibers of the levator ani and fibers of the deep transversus perinei. The needle can be passed into the tissues on the right side (of the operator) within the sphincter vaginae, not including that muscle, inwards and upwards, emerging underneath the vaginal flap then across to the opposite side including the same tissues, back again on the right side and down on the opposite side, making a double suture, drawn back and

tied in such a way as to draw the tissues together. This suture should not include the sphincter vaginæ and would leave the vaginal flap still separated above from these tissues. After this first suture is tied and in position, another suture should be passed entering the tissue behind the sphincter vaginæ on the right side, not including it, through the tissues of the right side of the pelvis superficially, then along the under surface of the mucous membrane so as to include the under surface of the vaginal flap, out through the tissues of the left side in a similar position and should be tied in such a way as to destroy dead space that might be created between the vaginal flap and the tissues brought together by the first suture. After these sutures are in place and tied to the satisfaction of the operator, a needle should be passed through the divided ends of the transversus perinei on the right, the needle not necessarily passing deep, only catching sufficient of the muscle to insure a firm hold and pass the full length of the structures on this side of the vagina which were not included in the first suture, thence across to the other side and back out including similar structures; the needle should then pass through the sphincter vaginæ of the right side, a little above the end of the transversus perinei and back out through the similar structures of the left side, making a double suture which should approximate the parts and should be tied. The next suture should pass just within the mucous membrane through the tissues of the right side on a plane a little higher than the last suture through the sphincter vaginæ and should include all of the tissues upon that side of the wound of operation, should cross over to the left side and back out emerging just beneath the edge of the mucous membrane. If necessary, another suture of the same character should be introduced in order to approximate the edges of the incision in each labia. One of these sutures, not the first one, should include the under surface of the mucous membrane so as to draw it in apposition with the tissues beneath and in this way destroy the dead space that might be left. The high suture should pass under the edge of the mucous membrane in the incision of the labia, underneath the tissues to the edge of the vaginal flap and should follow the margin of the vaginal flap through its whole length to emerge on the left side in a similar position. The effect of this suture will be to draw the edge of the vaginal

flap as with a gathering string down close to the junction of the external incision and if necessary for neater approximation the margin of the vaginal flap should be trimmed, but it should be left sufficiently long to make a covering from the vaginal side against the secretions from the vagina.

In the majority of instances the sutures which have been described will be sufficient to neatly and nicely approximate the margins of the incisions in the external labia and when the operation is finished to this point there will remain externally only the line of approximation at the point of the new vestibule with the vaginal orifice narrowed until only the urethra is left in view. If the margin of the skin and mucous membrane along the line of approximation do not come together nicely, they should be brought together by a continuous subcutaneous suture of chromicized catgut, or silkworm gut, or silver wire, which can be withdrawn after the parts have healed.

In the operation for complete laceration through the sphincter of the anus, it is important to note with great care the points at which the anal sphincter ends, which are usually marked above by cessation of the rugae around the anal opening and by slight dimples or puckers. The initial incision should start on each side at a convenient point above this end of the anal sphincter, about the level of the septum between the vagina and the rectum, the point being a matter of selection in each case. From this point the incision should follow the line of the septum separating the vaginal mucosa from the rectal mucosa or dividing the cicatricial tissue which lies between these two structures. From each external end of this incision an incision should be carried downwards and just to the inner side of the pucker produced by the end of the anal sphincter. The rectal portion of the flap should then be carefully separated from the vaginal wall and the dissection should be carried along the sides of the rectum so as to permit the flap, constituted of the posterior wall of the rectum to be drawn down and out sufficiently to entirely protect the sutured parts from the rectal contents. As the rectum is comparatively loosely fastened, this can be easily done without difficulty. If the laceration extend quite a distance up the rectum, it may be necessary to reflect a portion of this flap from the vaginal mucosa, as described and executed by Dr. Howard Kelly.

After this flap is ready the dissection should be extended so as to expose the ends of the anal sphincters, which should be drawn forward, the muscle stretched and the ends securely sutured in approximation by continuous returning sutures of catgut. The rectal flap should be brought out and fastened about the outer surface of these muscles in the natural position, leaving the rectal surface complete without an opening. The vaginal portion of the operation should be completed as described for incomplete laceration.

In operating for relief of relaxed vaginal outlet, the same principles should be followed. The initial incision should follow natural lines, so as to approximate labia naturally, the vaginal flap should be thrown up freely, the structures which have given way should be sought and brought together by carefully arranged sutures, so as to restore normal conditions.

The result of such proceedings carefully and intelligently carried out will leave conditions which are not painful to the patient; as a rule morphin is not necessary; which unite promptly and securely without reaction and which bear well the strain of subsequent labors.

Gonorrhœa in Women.*

By C. JEFF MILLER, M. D., Professor on Operative Gynecology on the Cadaver in the New Orleans Polyclinic, New Orleans, La.

It is rather strange that the epoch-making discoveries of Noeggerath and Lawson Tait regarding the pathological lesions following in the wake of gonorrhœal infection should have failed to place the treatment on a more rational and effective basis. The evidence is indisputable to those laboring in clinics for women, that the same proportion of women are losing their health and power of reproduction, as when these far-seeing clinicians first announced their sweeping opinion to a doubting profession. Now that the pathology is so well known and its ravages so generally recognized, it is truly pathetic to note the indifference with which too many of the profession treat, especially the chronic forms, which are, after all, the most dangerous types. It is only in the large gynecological clinics that one becomes able to appreciate how lacking in technic,

* Read before the Louisiana State Medical Society, April, 1903.

haphazard, misapplied, and dangerous is the average routine prescription for gonorrhœa, and the subject has been chosen for discussion in order that we may refresh our minds with the characteristics of the disease and probably prompt some of us who may be a little uncertain in our methods, to insist upon longer observation of infected cases, to be more consistent in treatment and, as far as possible, to exercise greater control over such patients. The discussion should be directed not so much towards the search for new remedies, for those we have at our command are quite effective when rationally applied, but to the localization of the infection, its habitat during the long latent period and, most of all, its microscopic appearances, in the chronic form. When gonorrhœa is mentioned, the acute, painful type in which the subjective symptoms are prominent, promptly suggests itself. Burning urination, profuse vaginal and urethral discharges, reddened vulva and vagina, etc., are the descriptive terms usually used in nearly all concise contributions on the subject; and yet, those who know and have labored conscientiously in this field, state without conditions, that they see very few cases of acute gonorrhœa. A. Palmer Dudley mentions that in twenty years of experience, he had seen but few cases, for the reason that in the majority of instances, excepting prostitutes, the disease had passed beyond the acute stage and the physician was called to see the sequelæ of it. This means that the onset of the disease can be insidious, almost trivial in its manifestations, passing under the guise of an ordinary leucorrhœa, which women too often ignore; that the subjective signs are fleeting in character, and may disappear while the disease is at its height, and that in primary cervical infection, no subjective sign may be present until the endometrium and higher structures are invaded. In the light of this clinical feature and the present generally accepted pathology, the treatment resolves itself into an earlier diagnosis while there is still a recognizable point of primary infection, to the application of active germicides and to a close personal attention of the physician to every detail connected with the management of the case. This attention should not relax until further evidence of the disease can not be found by both clinical and microscopical tests. Such a line of procedure in the male has elevated the treatment to the dignity of a technic and it is to be believed that the favorable results

obtained in their cases are influencing a larger percentage of men to apply earlier and follow the guidance of the physician more closely than formerly. The chief objection to such measures is the time consumed by both physician and patient; still, education is necessary and a little advice as to the dangers of the disease will usually suffice to gain consent to employ any measure that will insure future health of the organs. We should make a distinction between acute and chronic gonorrhœa, one the virulent, active disease, the other the slowly-developing condition which may have its few acute signs buried under a trivial leucorrhœa years previous to the first sign of real trouble.

Acute gonorrhœa of the vulva and urethra, if severe, calls the woman's attention to the trouble and she often really accomplishes a permanent cure by mere cleanliness, but the real danger is in the latent, or chronic form. A young, healthy woman marries and notices shortly afterwards a trifling leucorrhœa, which hardly demands treatment. Then painful menstruation, which gradually increases in intensity, appears, accompanied by tenderness over the ovaries, pain upon physical exertion; later, lassitude, extreme nervousness and aching of the thighs and legs. No special symptom demands treatment, so the infection gradually involves the uterus, tubes and peritoneum, before the mischief is recognized. These are the cases which Noeggerath and Tait had in view when they made their sweeping statements as to the incurability of the disease.

In order to facilitate the remarks on treatment, it will be of interest to review in a general way, the pathology of gonorrhœa and especially the localization of the affection.

Of the later contributions to the pathology, the work of Bumm, as described in Clark's Summary of the Literature on Gonorrhœa in Women, seems most generally correct. Bumm's idea is, that gonorrhœa is essentially an affection of the epithelial layers, and that the disease does not pass beyond this boundary. When the gonococci are deposited upon the mucosa, they multiply with great rapidity and adhere closely to the point of primary invasion. Later they penetrate between the epithelial layers, and there follows much irritation and a great transmigration of leucocytes. As the disease progresses, the epithelium becomes more or less disorganized and in

places lifted from its base, in other places cast off in large flakes. At this stage the profuse purulent discharge is present, and is due, in part, to the enormous numbers of leucocytes found beneath the epithelium. The gonococci begin to rapidly disappear as the epithelium is shed, their deeper penetration being prevented by the substratum of connective tissue. This, according to Bumm, makes gonorrhœa, in general, a self limiting disease. He explains the chronic cases very satisfactorily by stating that the gonococci disappear from the mucous membrane, but segregate in isolated areas and sections from such points show a thick epithelial layer, infiltrated with leucocytes and with superficial colonies of micro-organism over which still exists a thin layer of epithelium. This, says Clark, throws much light upon the known resistance of the vulva, vagina, and vaginal portion of the cervix to the infection, since they are covered with pavement epithelium and are not really mucous membranes. This explains the freedom of the vagina from infection, for the gonococci penetrate with difficulty between the layers of the flat epithelium, whereas the cylindrical epithelium of the mucosa is very vulnerable.

This same phenomenon is found in Bartholin's glands—simply involvement of the epithelial structures, principally of the efferent ducts, which account for the many cases of pseudo-cysts found in these glands. Bumm attributes the abscesses to mixed infection and also explains many of the more serious complications beyond the genital tract in this way. Even in chronic cases he always found the lesions superficial. Wherever the cylindrical cells were present, he never found the gonococci, but in the areas covered by flat epithelium, colonies were usually found beneath it. Beneath these involved areas, the substratum of connective tissue was markedly increased and round celled infiltration nearly always present, conditions not due to the invasion of the deeper structures by gonococci, but to simple irritation and inflammation.

Many of the late authors describe destructive changes wrought in the deep tissues by gonococci, but the findings of such men as Bumm, who combine a large clinical experience with accurate microscopical research, certainly carry much weight.

Localization of the Disease.—The urethra is so frequently infected that urethritis is considered, without exception, characteristic

of the disease, especially in acute cases. Some observers have gone so far as to assert that it is probably always the point of primary invasion, but such a view is extreme. To prove such statements would require earlier examinations than are usually possible and the microscope would be indispensable. Lesser, according to Reed, found that in 111 cases in which gonococci existed in the urethra, four-fifths of the number gave no microscopical evidence of the presence of gonorrhœa. In the acute stage the painful urination and burning sensation disappear in a few days, but the discharge of pus continues, on an average, for five weeks. Even later, by stripping the urethra with the finger, a drop or more can be expelled.

Chronic urethritis is the form more commonly seen by gynecologists. It usually exists as a diffuse chronic or circumscribed chronic urethritis. In the first class, the anterior urethra presents a chronic swelling and small abscess involving Skene's glands. When examined with a speculum, the mucosa pouts into the lumen, showing deeply injected vessels and, in the very old cases, gray patches. In the second class, Kelly states that the subjective symptoms are slight, often amounting to nothing more than itching. "The discharge is thin and contains but few gonococci. When the disease is localized in the glands, it is known as glandular urethritis. Patches of deeply-reddened mucosa are seen for the most part up near the internal and down near the external orifice. In these, particularly along the posterior wall, groups of yellow spots about half a millimeter in diameter are seen, surrounded by a reddened area. In the more advanced stage, anemic streaks of scar tissue may be seen and the tissue resists the passage of the speculum, even tearing when more pressure is made."

Bumm, according to Clark, states that the urethra entirely heals in six to ten weeks, if there are no complications.

The cervix stands next to the urethra in frequency of primary infection. It may or may not be attended by subjective signs until the infection mounts higher and can be easily overlooked.

A slimy, bloody discharge, which later becomes purulent and finally ends in cervical erosions, is to be carefully investigated. It usually denotes gonorrhœa and cervical erosions not traceable to tears are in themselves strong evidence of such a condition. The

cervix is the site of many of the most persistent cases. Here it lies dormant, where it may be the source for spreading the disease and yet, in a good percentage of cases, never passes beyond the internal os, unless disturbed by instrumentation or pregnancy.

Bartholin's glands are often infected primarily, though most usually secondarily. Weeks or months usually elapse before the ducts become infected, although cases are recorded of its well-defined presence in two weeks after exposure. It may begin as a chronic condition, and frequently the only sign of its presence noticeable, is the flea-bitten appearance of the mouths of the ducts, which Sanger first described as maculæ gonorrhæ. Cysts of these glands, according to Sanger, are almost certain indications of pre-existing gonorrhœa. The tendency of the gonococci to attack the epithelium of the duct and not invade the acini accounts for the pseudo-abscesses often observed. When the glands suppurate, there has usually been a mixed infection.

Gonorrhœal vaginitis is rare. Kelly quotes Bumm as stating that he has only seen five cases. Bumm considers it the result of the secondary irritation, caused by the stagnation of discharges from the infected cervix. Other observers, however, believe the gonococci to be the etiological factor.

Infection of the uterus and tubes has but little at variance from that observed in other mucous membranes. Most observers contend that it remains superficial; others are as positive that it even invades the muscular structures.

In the puerperal uterus, the gonococci have been found to have penetrated the muscularis and caused parenchymatous suppuration.

They have been reported as being found in the deeper layers of the tubes, but such observations have been strongly questioned by competent observers. Reed states that the widely credited power of the gonococci to penetrate leucocytes has been confirmed, and it has also been demonstrated, contrary to previous opinions, that they invade squamous as well as columnar epithelium, and that it is by virtue of this fact, that they find their way into the deep structures of the uterus.

Treatment.—When the affection is acute in any location, the entire treatment must be conducted in a manner to prevent unnecessary diffusion of the disease. This can usually be accom-

plished, if the affection is limited to the vulva and urethra, with two measures, rest and antiseptic applications. If there is a remedy of special virtue in this disease, it is rest. It should be absolute and a distinct understanding as to the importance of it should be had with the patient in the beginning. If the disease is circumscribed about the introitus vaginæ, it can often be limited by rest alone; indeed, some enthusiasts rely upon it almost to the exclusion of other agents. If the appendages become involved, it is really the only valuable agent left during the acute invasion. So much depends upon absolute composure when the uterus and appendages are involved, that Bumm insists upon such patients remaining two months in bed, or, at least, one month after all pain and temperature has subsided.

This may seem radical and impracticable, but the percentage of cases that recover permanently from an attack, when rest is enforced, justifies even more severe injunctions.

Few remedial agents will be mentioned. The silver salts stand first in the list. Bichloride of mercury, in the acute form as a cleansing and antiseptic application, and ichthyol in both acute and chronic stages, almost complete the group. Astringent applications, so generally in favor, such as zinc, tannic acid, etc., have a small field.

Gonorrhœal Urethritis.—Acute urethritis is usually associated with vulvitis and should seldom be treated as a distinct affection. Abortive measures have been tried with indifferent success, as in the male, but the cases are usually too late for such a procedure. The vulva should be frequently cleansed with bichloride of mercury solution (1 to 2,000) and pads of cotton soaked in the solution constantly applied.

The urine should be alkalinized, preferably by citrate of potassium and any favorite urinary diluent administered. If the case is seen early, during the first forty-eight hours, daily injections into the urethra of protargol (4 per cent.) or nitrate of silver may be made. If the infection has been carried upward, and the cervix and vagina show signs of involvement, the pudendum should be shaved, an alkaline douche given, followed by bichloride of mercury solution (1 to 2,000), and an application of nitrate of silver solution, about twenty grains to the ounce of water, thoroughly applied

through a speculum to every part of the vagina and cervix. During the application of the silver the vagina should be well distended either with a large speculum or, preferably, by placing the patient in the knee-chest position. After this is completed, tampons of cotton or ribbons of gauze soaked in a solution of ichthyol in glycerin (15 per cent.) are introduced into the vagina to keep the parts separated. The well-known exosmotic quality of glycerin makes it of special use, for the flow of serum following its application tends to wash the gonococci from the membranes. The application of nitrate of silver in the strength mentioned is rather painful, but it is not repeated oftener than every fourth day, and if the patient finds it too severe, cocain may be first applied, or some other silver salt used. The treatment of chronic gonorrhœa from the cervix downward consists of the persistent use of antiseptics. It should be applied in the form of bichloride of mercury, carbolic acid or lysol solutions with a douche bag, distending the vagina by holding the hand over the vulva and afterward touching every ulcerated, or inflamed area, with some one of the silver solutions. These ulcerated areas are often found in the fornices over the cervix, and especially about the external os. The vulva needs close attention, for the ducts of many glands open about the labial folds and infection of them constitutes one of the most persistent chronic types. Especially is this so of the vulvo-vaginal glands. The ducts should be emptied daily by systematically stripping the gland from within outward, after which a strong solution of nitrate of silver, 10 to 15 per cent., should be applied on a small probe. Ichthyol, pure, is also very efficacious. If the infection has extended into the gland proper, nothing less than extirpation should be considered.

While active local treatment should seldom be undertaken during acute urethritis, the chronic form is best managed by exposing the affected areas with a Kelly or Skene endoscope and applying 3 to 8 per cent. solution of nitrate of silver or protargol at intervals of four or five days. Skene's glands should be emptied by stripping the urethra downward at least every second day. Ichthyol in 10 per cent. solution seems to be as efficacious as silver. When such measures fail and small areas or ducts remain infected, actual cautery often prompts a speedy improvement. In chronic posterior

urethritis a vesico-urethral fissure is frequently found, a condition characterized by the usual signs of trouble about the neck of the bladder. Kellys' endoscope will give a good view of the affection. The sphincter should be well stretched with the urethral dilator or cystoscope, the patient kept in bed for a few days, and urinary antiseptics administered.

Cervical and Uterine Gonorrhoea.—The fact should always be remembered, that the infection may exist in the cervical canal and never extend to the body of the uterus. The canal should be gently cleansed and applications of one of the silver salts, 15 or 20 per cent., made every second day. This is best accomplished with a syringe constructed like the deep urethral syringe, but having no curve. If the os is small or cannot be dilated it may be incised bilaterally.

The solution can be injected from the internal os downward, as the tube is withdrawn, or on ribbons of gauze. As the discharge becomes less, ichthyol in glycerin may be applied on wicks of gauze, which may be inserted into the canal and allowed to remain 24 to 48 hours. If the infection extends to the uterus, it may be attacked in a similar way. The uterus should be packed with gauze saturated with nitrate of silver, pure carbolic acid, or ichthyol and allowed to remain in place 48 hours. When the gauze is removed, the uterus can be irrigated with a strong antiseptic solution through a small recurrent catheter, and three or four days later more gauze introduced. Intra-uterine treatment should be continued until the secretions are free from gonococci, for if left alone, in more than fifty per cent. of the cases, the infection reaches the Fallopian tubes.

The question arises as to the indications for curettage when the uterus is involved. The profession is divided in its opinion as to the efficacy of the curette and the complications that may follow its use. The majority of authors advise against it in acute cases. There is no question but that salpingitis follows its use so frequently that it must be considered too dangerous to be recommended. Pryor, on the other hand, states, that as soon as the diagnosis is made, the woman is to be operated upon. He even curettes in acute salpingitis, believing that if the operation is done before the tubes become occluded at the uterine ends, before pyosalpinx ensues,

and while purulent salphingitis is present, it will save tubes in 80 per cent. of the cases and render future operative procedure unnecessary.

I can find no such pronounced views expressed by any other author.

Reed advises curettage if there is no acute infection in the odnexa, or perimetric structure, and states that it should in no wise differ from that prescribed for chronic infectious endometritis, with the exception, that it is better to select some distinctly anti-gonorrhœal remedy with which to pack the uterus after its cavity has been scraped.

Just a line about gonorrhœa during pregnancy and the puerperal state. It is by no means an uncommon complication, and there are special reasons why it may be neglected at this time. During pregnancy when infection exists, daily douching with bichloride solutions should continue until the last week of pregnancy. Every precaution should be taken to protect the eyes of the child after its birth. No attempt should be made to treat the cervix locally, as miscarriage will frequently follow. The douches should be given during the puerperal period as before labor. No definite symptomatology for a gonorrhœal process during the puerperium has been described. It may develop as early as the third day, although Sanger (*Hirst Text Book of Obstetrics*), states, that it rarely appears in the earlier part of the puerperal state. It breaks out first about six or seven weeks after delivery, the most violent cases being acquired during the period of uterine involution. If examination reveals infection of urethral or vulvo-vaginal glands, or, if it is known to have existed during pregnancy a diagnosis can be determined almost positively.

The consequences of gonorrhœa during the puerperal state may be of the worst type, the ravages extending to the connective tissue, peritoneum and other structures and demanding prompt surgical measures. The microscope is indispensable in treating gonorrhœa, especially the chronic form. Secretions should be examined from the many localities where it is known to be persistent and repeated tests made until the gonococci are no longer found.

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Some Observations of the Treatment of Accessory Sinus Disease.*

BY GORDON KING, M. D., Professor on Diseases of the Ear, Nose and Throat in the New Orleans Polyclinic, New Orleans.

During the last few years no subject in the realm of rhinology has evoked more discussion, engendered more literature, or has been creative of more operative ingenuity than that of the treatment of accessory sinus diseases. It would seem indeed that the matter had been sifted to the bottom and little remains to be done in the way of investigation further than to consult our recent text books and learn at a glance the best course to pursue in the successful management of this particular class of cases. Experimentation and controversy are still rife, however, and the text-book authority usually contents himself in making brief references to the different methods in vogue, and finishes by a lengthy description of his own favorite procedure.

In this present day of energetic competition and tireless strife for professional recognition there is often observed an unfortunate tendency on the part of some members of the profession to attain at any cost the mark of originality. This type of genius must seize upon every instrument and change its shape or add a screw, must modify every operative method, as often for evil as for good, just for the sake of having his name appear in a catalogue of instruments or a text-book. As a result of this we have such an endless array of instruments and varied plans of treatment that a beginner is at a loss to know what course is really best to pursue until he finds after all that he must gain his practical knowledge, by imbued with the spirit that prompts him to do what is safest and best for his patient must be willing, however, to respect the ideas

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of others, and chose among them such as find no contradiction in operation or a new method of treatment he must regard the result his own judgment and experience. In testing the merits of an from a broad point of view uninfluenced by professional jealousy or national prejudice, or anything else than a desire to know if the claims made for it are justified by experience, and if its adoption in his practice will redound to the advantage of his patients.

Guided by this principle in the study of this subject and in my clinical investigations, I feel justified in drawing some conclusions from my experience with those methods in vogue which make up the present status of the treatment of sinus affections.

Let us begin with the maxillary antrum, as the one generally admitted to be most frequently diseased. The first principle in the treatment of any disease being to recognize and remove, if possible, the existing cause, we must delve a little into the etiology of antral inflammation. Aside from primary disease of the bony walls of the cavity due to traumatism, tuberculousis, or syphilis, there are two origins of infection, viz: Dental, dependent upon diseased conditions of the upper teeth; and nasal, arising from inflammation of the mucous membrane of the nose. Upon the prompt recognition of the causal factor depends, in great measure, the adoption of a proper line of treatment. The clinical history of the case will often afford an insight into the origin of the affection; as, for example, in a case of empyema of dental origin we generally find a carious upper molar or bicuspid, which has given rise at some time in the patient's recollection to toothache or an alveolar abscess, followed by a feeling of pain or heaviness in the region of the antrum and a discharge of pus, usually fetid in character, from the corresponding nasal chamber. If on the other hand we obtain the history of the antral suppuration having begun during the course of a severe rhinitis, such as attends an attack of grip or measles, and the teeth on the affected side are sound we are justified in considering the case to be of nasal origin. In the first instance our plan of action is plain. We must remove the affected tooth, and in so doing not only suppress the exciting cause, but take the first step in gaining an easy access to the cavity for drainage and irrigation, which are the essential features of the conservative treatment. In many instances ex-

traction of the offending tooth will be followed by a flow of pus, showing that the root had become exposed in the cavity of the antrum. This is not invariably the case, however, and it is required to introduce a hand drill or electric burr into the socket of the tooth and bore through into the antrum. This constitutes what is well known as the Cooper method, which is a simple operative procedure easily carried out by even those not familiar with this special field of surgery. This opening made, the diseased cavity is to be thoroughly irrigated with a mild antiseptic solution once or twice daily, injected through a small canula adapted to that purpose. Quick relief to the inflammatory symptoms that exist in the acute cases follows evacuation of the pus, and if the affection is of recent date and uncomplicated by ethmoidal or frontal disease, a few days treatment of this kind will suffice to arrest the suppuration, and the opening may be allowed to close. I am opposed to the practice usually advocated of introducing an obturator, a drainage tube or strip of antiseptic gauze into the opening to be retained during the treatment. It seems to act as an irritant and is an impediment rather than aid to the rapid suppression of the discharge. A small pledget of antiseptic cotton to close the alveolar wound will prevent the introduction of irritants from the mouth, and the daily passage of a canula through the opening will preserve its patency as long as we are justified in continuing this plan of treatment. From two to three weeks is sufficient to decide the effectiveness of this method, and if at the end of that time the suppuration has not abated, a more radical treatment should be advised. In my experience a continuation of the discharge after that length of time indicates organic change in the mucosa of the antrum, the establishment, in fact, of a pyogenic condition within the cavity that necessitates a complete removal of its lining membrane. The best method of accomplishing this we shall consider presently.

Thus we have dealt with a simple case of empyema of dental origin. We have yet to consider that form of maxillary sinusitis resulting from intranasal infection where, our plan of conservative treatment may have to be somewhat different. Whereas, in cases of dental origin there is usually, in the early stage, a simple empyema of the antrum, those of nasal origin may be considered as

examples of true sinusitis, since the purulent contents of the cavity arises from inflammation of its mucous lining, an inflammation that may continue indefinitely even after the intranasal inflammation has subsided. A simple empyema of the antrum may exist for a long time without causing any structural change in the mucosa, and evacuation of the pus restores the normal condition. Hajek relates a case of this kind of seven years' duration cured by one thorough irrigation of the cavity. This difference in pathology of the two forms has an important bearing on the prognosis and treatment of a case.

It is seldom that we are called upon to treat an acute case of maxillary sinusitis in its earliest stage when the nasal inflammation is not violent.

Usually we are consulted on account of a persistence of the discharge from the nose after the acute stage of the rhinitis has passed. If rhinitis is present it should be given proper attention in the way of antiseptic cleansing to remove the source of infection, and applications of adrenalin chloride 1-5000 to reduce the tumefaction of the membrane and promote drainage of the cavity through its natural opening. In mild catarrhal inflammations of the antrum this alone may afford relief, but where the process is more severe and suppuration is going on in the cavity, it is necessary to irrigate the antrum as well. To do this we must either utilize the natural opening in the middle meatus or create an artificial one. Somewhat contrary to the experience of many writers, I have seen but few cases where it was very difficult to find the natural opening and irrigate through it. If cocain is properly applied catheterization of the opening can be done without pain, and while it does not permit of as thorough cleansing as can be accomplished by other methods, I have seen many acute and milder forms cured by this process alone. When the ostium maxillare is abnormally small or so situated as to be difficult of catheterization, there remains a choice of four situations for creating an artificial opening: (1) Through the nasal wall in the middle meatus. (2) Through the nasal wall under the inferior turbinate. (3) Through the canine fossa, and (4) through the alveola. From the nasal side the latter point is preferable because it is easier of access, incurs no risk of injury to the orbit, and is near

the lower limits of the cavity, thereby assuring better drainage. At either point the perforation may be affected with a small curved trochar and canula. As to the choice between the canine fossa and the alveola, we must be guided by the condition of the teeth. If the bicuspid and molars are sound the canine fossa is the point of election, but if one of these be carious or absent the alveola perforation is to be preferred above all others. By whatever route we may irrigate, if the pus continues to flow after the reasonable time we have indicated, resort to radical operation is the next step.

In deciding upon a method we would choose that which offers the best assurance of a rapid and complete cure, is simple in its technic, entails the least traumatism, and leaves no visible scar on the face. The method that approaches nearest the realization of these requisites is that known as the Caldwell-Luc operation, which, with slight modification, I have adopted in the treatment of my cases, and thus far with entirely favorable results. My own experience is in accord with that of most clinicians who are not inclined to be ultraconservative in their views. A description in brief of the operation is as follows:

Under general anesthesia an incision is made along the gingivo-labial fold down to the bone, extending from the frenum of the lip to the maxillary tuberosity. The periosteum is detached and retracted on each side of the incision to expose the canine fossa and the anterior antral wall. The bone is cut away in this situation to allow of free exploration with the finger, and the introduction of curettes with which to remove the diseased mucosa and polypoid masses that give rise to the puss discharge. This done, a counter-opening is made through the nasal wall at a point corresponding to the anterior third of the inferior turbinate in the inferior meatus. The soft parts are then sutured over the buccal opening, a strip of gauze introduced into the cavity through the nose, and the operation is finished. The after treatment consists in mild antiseptic lavage through the nose to clear out remaining blood clots or fragments of detached mucous membrane. In simple cases of isolated maxillary sinusitis this treatment if carefully carried out seldom fails to effect a complete cure. When failure occurs it is almost invariably dependent upon the complication

of ethmoidal disease, which should by all means be recognized and treated before radical cure is attempted. Ethmoiditis is a most frequent accompaniment of maxillary and frontal sinusitis, and with the most obstinate of the accessory sinus suppurations. Its treatment is best accomplished by endonasal operations destined to remove by means of snares, curettes, etc., all polypoid formation and diseased cells to be reached by this route. Often it is necessary to make repeated attacks upon the parts before we can succeed in clearing away all the affected cells, but persistent and patient efforts will eventually be rewarded. Rarely is it necessary to resort to external operation, which is disfiguring, and may result in infection of the orbit. Next in order of frequency and foremost in importance is inflammation of the frontal sinus. From an etiologic point of view we have practically but one source of infection to consider, and that is the nasal cavity. In acute inflammation the infection may extend direct to the frontal cavity through the fronto-nasal canal, but in a large proportion of cases, especially the chronic type, ethmoditis coexists and is probably the immediate agent of infection of the frontal sinus. The anatomical relations of the frontal and ethmoidal cavities are so intimate that some investigators claim that the frontal sinus is nothing else than a large ethmoid cell which has developed between the tables of the frontal bone. The frontal is different from the maxillary sinus in having its nasal communication at its lowest point and hence its natural drainage is better. On the other hand its outlet is a narrow canal, which may easily become obstructed and cause a retentio nos secretion. This takes place in acute inflammation from swelling of its lining membrane, and in chronic cases from the formation of polypi and granulations in the middle meatus. The initial step naturally is to clear away any barrier to the exit of secretion, retention of which is sure to lead to trouble. In the acute form, besides the general treatment usually advised for coryza, such as a hot bath or mustard foot bath, purgation, Dover's powder, etc., a spray for the nose adrenolin solution, 1-500, containing one-half per cent. cocain does valiant service in relieving the local inflammatory congestion and swelling, after the use of a cleansing nasal douche. If the frontal pain is not diminished in twenty-four hours by this treatment, the fronto-

nasal canal must be catheterized and the cavity irrigated. I have rarely found this impracticable, but rather painful even with cocaine. As the lower orifice of the canal is covered by the middle turbinate it is the tumefaction of that structure which usually causes its obstruction, and interferes with the passage of a catheter. When this condition is apparent it is advisable to remove the anterior end of the turbinate with a snare or forceps. Lermoyez, who has written extensively on the subject, seldom finds catheterization necessary, and strongly extols the virtues of menthol vapor for liquifying the secretions, diminishing congestion, and acting at once as an antiseptic and analgesic. A teaspoonful of a four per cent menthol-alcohol solution is put into a cup of boiling hot water, the vapor from which is inhaled into the nose for five minutes every two or three hours. He claims this to be sufficient to relieve the pain invariably within two days and generally to effect a cure.

In any case whether acute or chronic I think it but fair to make a test of conservative treatment before advising an external operation, but when such measures as I have described for promoting free drainage and cleansing the cavity fail within the course of a few weeks to bring about a cure it seems to me to be our duty to propose a radical operation. The proximity of the sinus to the brain and the eye, in which serious complications are known to occur, render it more imperative than in disease of the other accessory cavities that we should rid the patient of this source of danger. We have to consider here, however, the question of facial disfigurement, which must necessarily result to a greater or or less extent from an external operative measure we may adopt. This fact may often deter the surgeon from doing what his surgical sense tells him is the best thing to do to cure the disease, and the patient himself may prefer to bear his disease than to submit to an operation that leaves an unsightly scar on the face. In addition to this a serious difficulty besets the operator which is responsible for many failures, and that is the post-operative drainage of the cavity. Formerly an external operation on the frontal sinus meant simply trephining through the frontal or orbital wall of the sinus to allow an exit of the pus. No attempt was made to thoroughly curette the cavity or provide for drainage through the

nose. This method has at present become almost obsolete, and deservedly so, as it usually proves ineffectual and may leave a permanent fistula. The Ogston-Luc operation was next devised, by which it was proposed to open the sinus largely through the frontal wall, remove the lining membrane, secure nasal drainage by enlarging the fronto-nasal canal, and suture the external incision. This operation has many advocates, and in my own hands has been productive of good results, but is by no means infallible. Theoretically it is acceptable in every respect, but practically it has a serious defect, and that is the preservation of a drainage opening into the nose. Even when we enlarge the frontal canal to the full limits permitted by its anatomical relations it becomes quickly closed by granulation of bony tissue and a recurrence of the empyema results, necessitating a reopening of the wound.

One of the strongest rivals of this method is that of Kuhnt, which aims at complete obliteration of the cavity, which result is obtained by complete resection of the bony frontal wall and transplantation of the soft parts against the posterior wall. The nasal communication is not enlarged, and drainage is secured by a tube introduced in the outer angle of the wound, the rest of which is sight of, however, and a deep depression in the forehead is left behind to mar the symmetry of the face. As a happy compromise between these two methods, a third has been devised, combining the features of cavity obliteration and intranasal drainage. I have recently shown a case of this kind to the Orleans Parish Medical Society, and aside from the one objectionable feature of disfigurement, I have never obtained a better result. I am inclined to consider the method as the most effectual yet perfected for the radical cure of chronic frontal sinusitis.

Of the operation of Jansen for resection of the orbital wall of the sinus, and that of Killian, who makes an opening above and below the orbital margin and attacks the ethmoid through the maxillary nasal process, I have little to say, as neither seems to offer great advantages over those I have described, and I have not, as yet, given them a trial.

To conclude this rapid review we have to consider still another accessory cavity, the sphenoidal, which deserves at least passing mention. It is rarely affected with empyema, or perhaps we re-

cognize it but seldom, for it can easily escape our notice. When recognized to be the seat of suppuration, treatment must necessarily be along conservative lines on account of its inaccessible position.

After removal of the middle turbinate its orifice may be seen and catheterized, and if necessary, enlarged to permit of its irrigation through the nose.

Time does not permit me here to speak of those unusual forms of sinus suppuration complicated with necrosis of the bony walls or fistula, which have to be treated according to the special requirements of the case.

It may be observed that I have endeavored to bring out the importance of a few points to be observed in the treatment of accessory sinus suppurations, and they are as follows: For acute sinusitis, removal of exciting cause, drainage and irrigation; for chronic forms, test treatment as for acute form, failure of which to be followed by radical operation to remove lining membrane, secure intranasal drainage, and if possible obliterate the affected cavity.

Clinical Report.

Frontal Sinusitis a Cause of Accommodation Paresis.

By H. MANNING FISH, M. D., New Orleans.

In this article I will present some obscure cases of eye strain in such a manner that the general practitioner can understand them as well as the specialist. The near point of an eye is the nearest point at which type of about this size can be read. By holding this page at arms length and gradually bringing it nearer you will reach a place where the print cannot be read any more, that is the near point of that eye, and the range of accommodation extends from infinity to the near point, and is measured by the diopter, an arbitrary unit adopted to express the amount of accommodative effort necessary to bring the focus from infinity to a point one meter from the eye. The focus on an object $\frac{1}{2}$ a meter (50 c. m.,) requires two diopters, 1-5 a meter (20 c. m.,)

five diopters, 10 *c. m.*, 10 diōpters, etc. The near point recedes with age (consequently a reduction of accommodation range) being situated at 7 *c. m.* at 10 years, 10 *c. m.*, at 20 years, 18 *c. m.*, at 35 years, etc. Accommodation power is what I would call the ability to maintain prolonged accommodation at the ordinary reading distance, 30 or 35 *c. m.*, and with a near point from 10 to 20 *c. m.*, there should be no trouble ordinarily to maintain prolonged accommodation. Besides the reduction of the range of accommodation that comes with age, there is often a loss due to various other causes, (as severe illness, diphtheria, throat troubles, intestinal irritation, etc.), and it is present in hysterical asthenopia, generally in a varying degree, the position of the near point frequently changing. Another frequent cause of reduction of the accommodation range and power, one which many authorities do not mention at all, I find to be an acute or sub-acute inflammation of the frontal sinus and I discovered it in this way. A little over a year ago I had a case which might have been readily diagnosed as hysterical asthenopia, a lady 30 years old who had consulted various oculists without relief. I had corrected her hyperopia, repeated tests proved the glasses were correct and for weeks her near point was always normal (14-16 *c. m.*) yet she could not read for more than an hour (reduction of accommodation power) and she often had "spells" of a day or more duration, during which she could not read five minutes nor bear any light, and in addition she suffered with frightful pains in her head. These attacks were variable as to frequency and duration and from no ascertainable cause. I suspected frontal sinus trouble but never detected the least pain or tenderness from pressure over the sinus or under it (on superior orbital wall), a symptom that at that time I looked upon as always present in this trouble. By having her call during one of her attacks I found pain and tenderness very marked by making the above pressure-test, and I also found her near point for each eye greatly removed, (35 *c. m.*). By probing and syringing each frontal sinus on two successive days obtained a foul white nasal discharge on each side; both near points returned to their normal position and ability to maintain prolonged accommodation (she read and sewed until midnight) was restored though it had been absent for years and this without treating the eyes or changing the glasses. Nearly

a year afterwards this patient wrote me she had had no trouble with her eyes. Since that time I have found that frontal sinus trouble is a frequent cause of affection of the accommodation (loss of either range of power), it was the disturbing factor in 10% of some two hundred and fifty odd cases in the last fifteen months suffering from asthenopia or eye strain. This is a very large percentage and may be due to our moist climate, or I may have had a run of sinus cases. In addition to this number (10%) of undoubted diagnosis, there were several other cases in which the presence of a sinus involvement was strongly suggested but which could not be proven on account of my not being able to follow up the cases, as some were transients and others were of that class who, though they may have suffered for years from asthenopia, headaches, etc., expect an oculist to relieve them with a glass the first visit.

To illustrate the effect on the accommodation of involvement of the frontal sinus, I will cite one or two cases:

CASE 1. Young man, came September 20, 1903, with history of eye strain, his eyes had been tested by an oculist a few months before but he could not wear the glasses; tried another man, same result. Right eye: vision 20-20, near point 26 *c. m.*, astigmatism, .25 D. Left eye: vision 15-20, near point 18 *c. m.*, a minus glass (— .50) gave him vision of 20-20, astigmatism .50 D. Exophoria, 20 feet 1°, 18 inches 3°. The fact that a minus glass increased the vision of the left eye to normal indicated myopia, either true or pseudo-myopia, the latter due to ciliary cramp. Under atropin the following glasses were ordered for constant use. Right eye +.62 D. Left eye, +.25 D. = +.50 ax 90°. Although the near point for each eye with glasses was normal, (10-11 *c. m.*) two weeks later patient complained of frontal pain and headache and, as ciliary cramp was present, hematropin was instilled which gave him normal vision in each eye. October 22 (two weeks later) he complained of severe frontal pains especially in the early morning, varying as to time and severity and appearing irrespective of any use of his eyes for near work, pains intense enough at times to confine him to his room, photophobia, inability at times to do near work, one day he was alright could read, etc., next day it was impossible, ciliary cramp again present, history of occasional nosebleed and puffiness under the lower lids. Pressure over each frontal sinus and back over eye on inferior orbital wall (under sinus) painful.

Near point, right eye, 23 *c. m.*, left eye 25 *c. m.*, both middle and lower turbinates swollen, the latter tender to the lightest touch with probe, even after cocainization. I probed the left frontal sinus. October 23 no pain and pressure tenderness on left side. Near point for left eye, 12 *c. m.*, right eye, 23 *c. m.* Probed right frontal sinus.

October 24 no pain on either side, near point for each eye, 10 *c. m.*

On October 26, return of all symptoms, near point right eye 20 *c. m.*, left eye 21 *c. m.* After probing I entered each frontal sinus with a fine silver canula and injected a little water. October 27, patient reported complete relief; could read. Said he had felt a sharp pain in the root of the nose, "as though something was passing," then he blew out a slug and small particles of a yellowish color. There was a considerable discharge (foul) on each side, which was followed by complete relief. Patient called at my request in December. He had no more trouble; his near point is normal for each eye; he does not use his glasses at all on the street, and only while studying. This patient, with a latent hyperopia and slight astigmatism, is free from all symptoms of asthenopia, does not wear constant glass, although three men (including myself) thought his latent hyperopia and slight astigmatism needed correction and gave him glasses for constant use. By establishing drainage of the frontal sinus his near point returned to normal and relieved him of his trouble.

CASE No 2. Lady, 29 years old, came March 18, 1903. History of eye strain for several months. Right eye, vision 20-20 near point varied 30 to 40 *c. m.* Left eye, vision 20-20, near point 35 *c. m.* Exophoria 20 feet 3°, 18 inches 5.55°. Under hemotropin she was slightly astigmatic and hyperopic and correcting glasses were ordered. On May 25 patient reported no relief and sinus involvement was suspected, photophobia frontal pains, pains on pressure over frontal sinus and the near point for each eye 30 to 35 *c. m.* Both turbinated on each side red and swollen the middle one especially so, and tender on touching with a probe. I probed each frontal sinus. Next day near point each eye 16 *c. m.*, white discharge in fissure semilunaris (outlet of fronto-nasal canal). There was more or less of a white nasal discharge in next few days. Each near point remained at 15-16 *c. m.* and she

had relief for several months. Following a severe cold she had a return of her symptoms, pains in, over and behind the eyes shooting to occiput, severe headache lasting all day, feeling of pressure and pain in the head so severe she could not sleep, near work impossible, pressure over and under frontal sinus painful, the sinuses could be outlined by tapping on them with the finger, near point 25-28 *c. m.* and a far point under 50 *c. m.* for each eye. Nasal passages red and greatly swollen. I probed each sinus again which was followed by a profuse yellowish greenish nasal flow and relief from her symptoms. The near point (without glasses) returned to normal for each eye. She now discards the glasses for constant use and frequently studies without them.

CASE No. 3. Tulane student, aged 17, called October 17, 1903, to have his eyes tested. For past few days impossible to study, cannot read five minutes, has severe pain in and over the eyes especially in the morning, pain worse on leaning forward, light hurts his eyes, pains in head irrespective of any attempt to do near work, though this aggravates his symptoms. Three years ago had the grippe when he had the same severe symptoms for three days, eyelids puffy at that time. A year and a half ago had similar trouble during an attack of the measles, in last few months has had frequent nosebleed, lids were often puffy (15 times or more) and has been able to study at times without trouble, but symptoms of the eye strain were frequently present to a greater or less extent. Right eye, vision 20-30 which a minus glass increased to 20-20, near point 30 *c. m.* Left eye, vision 20-20, near point 32 *c. m.*, neuralgic pains about the eyes, forehead, temples and vertex, severe pains all about each frontal sinus on pressure. Told to call Monday when I would examine his nose. October 19, (Monday) same picture, each near point removed, 31-32 *c. m.*, and I found the lower turbinates greatly swollen, the middle turbinates red and tender although cocainized, the left one soggy and completely filling the upper nasal passage. I probed the left frontal sinus and in less than an hour I took the near point again, right eye, 31 *c. m.*; left eye 9 *c. m.* October 20 patient reported a profuse yellowish discharge from the left nostril coming on soon after leaving my office the day before and continuing all the afternoon, complete relief from pain on left side, right side neuralgic pains as before. Near point, right eye, 32 *c. m.*; left

eye, 10 *c. m.* I tried to probe right frontal sinus but did not succeed. October 21, same condition as day before, near point, right eye, 28 *c. m.*; left eye, 10 *c. m.*, left side both turbinates present normal appearance, lower one not swollen and middle not tender to touch. Right side middle turbinate very tender to touch. I succeeded in probing right frontal sinus. Patient did not call until requested to do so on the following Saturday, the 24th. He had returned to college entirely relieved of all his symptoms, had had the same foul discharge on the right side the day following last treatment. Near point normal, 9-10 *c. m.*, each eye and no trouble to study. This patient at 17 years of age, with a normal or emmetropic eye, should have a near point of 9 *c. m.*, giving him an accommodation range of eleven diopters $100 \div 9 = 11D$). Frontal sinusitis reduced his range to a little over 3 diopters ($100 \div 30 = 3 - 1.3D$), or to less than 1-3 the normal. He had a slight amount of astigmatism. This patient was given no glasses, his eyes were not "treated," in fact nothing was done save drainage of the frontal sinuses.

Another patient, a little girl, 10 years old, came to me October 26 with history of "weak eyes." She had been out of school for a year and a half as she could not read or study five minutes on account of severe neuralgic pains in and around the right eye. These pains were sharp shooting pains, always worse on attempting to read, and they ranged back over her right fronto-temporal region. Some tenderness over right frontal sinus on pressure though not pronounced. This symptom is often uncertain or unreliable in a child as it is hard to eliminate the idea of suggestion. Distant vision normal in each eye. Near point, right eye, 33 *c. m.*; left eye, 9 *c. m.* Of course she had asthenopic pains and could not read with a near point for one eye of 33 *c. m.* giving her an accommodation range of only three diopters when she should have thirteen or fourteen. During the following three weeks I saw her ten times or so, her near point for left eye was always normal, the right each time ranging between 25-35 *c. m.* I endeavored to reach the right frontal sinus but did not succeed. I hated to tell the mother it was necessary to operate on her little girl's nose on account of her eye, but I had to and the operation was readily consented to. Under cocain I removed part of the right middle turbinate, probed and syringed the frontal sinus, and

one day (Dec. 11) the mother told me the child had been sewing. I took her near point and found it 8 c. m. for each eye and it has remained there to date with ability to sew and read. After I operated her, I instilled atropin in each eye out of curiosity and found her slightly hyperopic (+ .62D.) in each eye.

In an article sent to an Eastern medical journal in September and now awaiting publication, I discussed this subject at some length and advanced the theory that a frontal sinus involvement, by its effect on the range and power of accommodation, by producing a variation in the position of the near point, together with the accompanying neuralgic pressure-pains from the pent-up secretion in an inexpansive bony cavity, is responsible for many cases diagnosed as hysterical asthenopia and the neurasthenia of childhood (from the fact that the accommodation range and power are so affected sinusitis, acute or latent with exacerbations, manifests itself by symptoms principally in connection with the eye (asthenopia) and, as the true condition is frequently not recognized and the "spells" come on at various times and from no ascertainable cause, the asthenopia can easily be pronounced to be of nervous or "hysterical" origin) and further that sinusitis, by causing a partial loss of range of power of accommodation, can be considered an etiological factor of myopia, in that a ciliary cramp or spasm can be invoked from the increased strain necessary to overcome this accommodation paresis. In this paper I wish to make the point, that a slight latent hyperopic or a slight amount of astigmatism (physiological), which caused no trouble ordinarily, would, however, produce severe symptoms on account of the ciliary paresis and sluggish pupil, common symptoms of sinusitis, and would lead to the prescribing of glasses when not called for.

If the sinusitis should not be recognized, the slight astigmatism would be held accountable for the asthenopia, cylinder lenses prescribed and, if kept on long enough, the eyes become accustomed to them and they can not be laid aside. For this reason I think many a patient is a slave to glasses for "astigmatism" that were given through a failure to recognize the true cause of his eye symptoms.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Medical America to European Eyes.

It is always interesting, if nothing more, to see ourselves as others see us. One glimpse at any rate may be obtained by reading the conclusions reached by Dr. Francis Munch, of Paris, after an extended tour of the United States undertaken for the *Semaine Médicale*, the purpose of which was to post its readers concerning things medical in America from both the scientific and the professional standpoint.

To estimate properly the value of Dr. Munch's impression, published in the *Semaine* of December 23, 1903, it must be noted, on the one hand, that he is a clever, intelligent, and well-posted man; on the other, that his itinerary was subordinated, as he himself says, to the necessity of seeing "the most things" he possibly could within a year.

He states that the American's preference runs to surgery and that this branch is taken up by the best minds. He thinks that the great advances made in the surgical domain during the last few years in part account for this learning; however, in his opinion, it is more that contemporary surgery suits admirably the national temperament of the United States in that it is active, enterprising, often bold.

Even in surgery he finds that general attention is directed mainly to the questions of most practical interest, particularly of operative technic.

Still, he does not believe that we have as yet shown much originality, because we are too much in a hurry and borrow from others in preference to seeking for ourselves; hence our frequent journeys; during their course, he considers, we discern, with

remarkable judgment what must be adopted, how any given procedure may be modified or combined with others.

Dr. Munch finds that the same applies to laboratory work in this country. He has noticed the enthusiasm with which such work has been undertaken, but finds it rare that really original researches are carried on; foreign ideas are seized upon and sometimes without sufficient criticism, even though they have been emitted only hypothetically

He asserts, however, that there exists in fact a specific "American Medicine," with distinct characteristics evolved from native qualities. While it has not created independent methods, it has added important improvements to methods and procedures derived especially from England, France and Germany. This explains our yearly pilgrimages to Europe and why there is as yet no reciprocity, no tide in this direction. We neglect, comparatively speaking, bedside teaching, which is to be found better in Europe, notably in France.

This will change, he thinks, as the same factors are at work which have led to the high position held by the United States in the economic world, for the dominant impression left by his voyage of exploration in medical America is that of unceasing labor, untiring energy, and constant and rapid progress.

If not altogether satisfying to our national pride, we have to admit that Dr. Munch's article gauges the existing situation, in the main, correctly. He has not, it is true, given us sufficient credit for originality and innovation, especially in the domain of surgery, but he has touched the right spot in criticising us for undue haste and for adopting from abroad ideas or methods as yet immature.

His article is chiefly synthetic. He does not attempt to explain the ultimate reasons for our present position or great promise of progress.

Adding our analysis, we would say that, paradoxical as it may sound, our strength as well as our weakness, in medicine as well as in most things, is due to the fact that we are quite a young nation and all that this implies. We have few national laboratories and not even many endowed ones. We possess no professors or plodders paid by a paternal government. The individual, though he loves science, must earn his daily bread.

We are a people who are not quite homogenous as yet. We

need only more time, more maturity in order that our varied elements may become better blended, forming in truth a new race.

When this shall have been accomplished, and we say it in no boastful spirit, the United States will attain in medicine the rank already occupied by them in some lines—leading the world.

The Louisiana State Medical Society Meeting in May.

So much progress has been made in our State Society during the past few years that the coming meeting should be promissive of the best gathering which we have yet had. From month to month we have noted the development of the local parish societies, in most instances created under very favorable auspices and with a high degree of enthusiasm. This has been due in great part to the efforts of the energetic President and the no less interested Secretary of the Society.

Crystallization of the profession in the State looks very much more like a realization than ever before, especially now that through organization a large part of the country parishes have fallen in with the ideas of the constitution adopted at the 1903 meeting. Instead of reducing the membership of the Society the accretion has been quite marked, and with the increase in numbers there must be a corresponding impetus given by the scientific work and general motives of the Society itself. Not that this is a reflection upon the work of the Society in antecedent years, for those who have followed the evolution of our State organization must have kept in mind all the good work accomplished and which had really established the foundation for the present corporate body standing for medical union in Louisiana.

The whole scheme of medical association in the United States seems to point to concerted and fraternal relation of the individual units as represented by both the prosperous urban practitioner and the country doctor, less full of opportunities for either the thought or profit of scientific advance. Aside from the purely intellectual ideals which must grow with the larger community of interest to every organized body, our own State Society under its present plan of procedure has a future of usefulness not only to its own membership but in its public relations.

There are many reasons for regret that the profession of western

Louisiana, and especially of Lafayette, the selected place of meeting, should have had to relinquish the convention of our State profession. It is a matter of congratulation to them, however, that they should have realized the importance and the probable numerical strength of the coming meeting, and this more than anything else dictated the change in meeting place to the city of New Orleans.

The JOURNAL, at this early date, desires to stimulate the interest of those who have recently joined the professional body, and to remind the older members that the fruit of the year's work should show in large fulfillment next May. We understand that a most excellent program is planned and New Orleans will see that the usual hospitality is not omitted.

William M. Warren.

For ten years and more the standard of pharmacy has been gradually lifted from mere competitive trade products, often questionable, to conditions of almost satisfied ideals. A few firms commercially interested in supplying the profession of medicine with the needs of their practice have believed that an ethical relation should exist. Among these Messrs. Parke, Davis & Co. have, at all times, been in the van. No man helped to make this ethical standard more than the late William M. Warren. The story of his career has been related and encomiums have been laid at the altar of his memory, and there is little left for us to say. As editor, head of a business concern, master in courtesy, he earned all the laurels which have been laid after the requiem has been said.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

In charge of DR. F. W. PARHAM, assisted by DR. F. LARUE, New Orleans.

THE TREATMENT OF CANCER BY CAUSTIC PASTE.—Charles Warrenne Allen enters an emphatic protest in *New York Medical Record*, of December 12, against the tendency of some writers to relegate the caustic treatment of cancer to the charlatan. He considers the method of treatment too valuable to be buried in oblivion by the reputable surgeon. He and Dr. A. R. Robinson, of New York City, never omit in their post-graduate teaching to advocate the paste as a superior form of treatment for many forms of cancer. Comparing his statistics of epithelioma treated before the days of X-Ray with those treated by the rays, he was struck by the little difference in the results comparing fifty patients treated by pastes alone with fifty patients who had the benefit of the X-Ray in addition and as the sole method employed, the final results, number of recurrences, etc., were almost identical.

Holding such views, based upon experience, he was naturally much gratified to read in Dr. Gottheil's excellent review of dermatology in the last volume of *Progressive Medicine* the following: "Allen's conclusions represent the position that seems rational, and as they summarize our present knowledge upon the subject, I repeat them:

"1. Cutaneous cancer is traceable in almost all cases to preceding local irritation.

"2. There may be other causes, but infection is probably a source of the disease.

"3. Benign epitheliomatous proliferation may be infectious.

"4. Cancer is curable, but if the disease is allowed to progress the patient may not be.

"5. Only the most radical treatment is to be tolerated.

“6. Caustic paste, with subsequent caustic dressing, is radical and is often preferable to the knife

“7. The earlier cancer is treated the less likelihood is there of relapses or metastases.

“8. The X-Ray bids fair to be as effective as caustics.”

The disrepute into which caustic pastes have fallen are due to two causes namely: 1st. Charlatans applied them to all forms, deep as well as superficial, and 2nd, on account of the horrible pain usually attending their use, especially in the hands of charlatans. Now, as Allen shows, the first objection is overcome by reserving the treatment for suitable cases and the last he meets by mixing the paste (arsenical) with orthoform, which plan he has carried out for a number of years with the utmost satisfaction. We understand that our confrere, Dr. Rudolph Matas, of this city, who, by the way, we remember some years ago, called attention in a very emphatic way in an article in this JOURNAL to the value of the caustic treatment, mixes anesthesin with his paste with excellent effect in preventing the pain.

Undoubtedly, in a large number of cases of superficial cancers, especially where not accessible to the knife, this treatment by caustics has some decided advantages. We believe Dr. Allen shows clearly that the following judgment of Dr. Campbell White, which called forth apparently his article must be seriously modified:

“The caustic treatment in the form of injections, paste, and all other kinds of mixtures, rarely prove of any service, and usually only deceive and render more uncomfortable the existence of a patient. They have been discarded by almost all except charlatans.”

THE WORTHLESSNESS OF THE LEUCOCYTE COUNT IN ACUTE APPENDICITIS.—L. Rehm, before the Section of Surgery of the Association of German Naturalists and Physicians which recently met at Kassel (see *Zentralbl fur Chirurgie* No. 48) attempts to throw discredit upon the value of the leucocyte count in the prognosis of appendicitis. He asserts, and endeavors by a tabulated statement of his own experience to prove, that Curschmann's leucocytosis has shown itself practically valueless. He says that the physician who sees many autopsies *in vivo* in such cases is in his opinion in much better position to form a correct judgment in

a special case, than he who dispenses with such autopsies or seldom sees them. He insists that only by noting all symptoms and carefully considering them in all their relations can one hope to arrive at a correct conclusion.

We fail to see, then, why he should discard any means of progress that may be of any service whatsoever in a doubtful case. Moreover, he frankly admits that "the most experienced may commit errors" and adds: "There is no such thing as certainty of diagnosis in acute appendicitis." It is just such a consciousness of hopelessness that made Dieulafoy operate in all cases where the diagnosis was established, but most of us can not feel that this plan is invariably the best, and we welcome, then, any means that may serve in cases to resolve our uncertainty. Few hold that the leucocyte count is to be so much depended upon in diagnosis, but this being established very many do hold that the count often proves of inestimable assistance in watching a case with a view of learning when intervention is best.

Curschmann, Cabot, DaCosta, Wright and Joy and many others have given us numerous examples of the incontestable value of an *increasing* leucocyte count, and Longridge as late as October 24, 1903, in the *Lancet* insists upon its value. Instead of being however, an absolute and infallible indication of pus, it is a sign of great value of the existence of toxemia. He draws these conclusions from a consideration of a large number of cases at St. George's Hospital, while he does not fix any definite relationship between the amount of the leucocytosis and the degree of toxemia, he holds that an *increasing* leucocytosis is the most scientific and accurate measure of the increasing virulence of an appendicular or other similar infection. He holds also the contrary, that a decreasing count indicates decreasing virulence or a walling off of toxic products. He agrees with DaCosta that while not a pathognomonic sign, the leucocyte count is of value in routine clinical surgery.

Department of General Medicine.

In charge of DR. E. M. DUPAQUIER, New Orleans.

TREATMENT OF CARDIAC LIVER.—Congestion of the liver resulting from broken compensation in valvular lesions is frequently the

chief manifestation of the latter condition, a point, therefore, of every day practice, which is worth knowing. Here is the treatment of this cardiac complication as given in *Rev. int. de Clin. et de Ther.* No. 5, 1903: Two kinds of measures are to be employed: the first to act on the local circulatory disturbance in the liver; the second to re-establish cardiac compensation.

Let us consider only the first ones which consist of:

A. Local bleeding by means of (a) from four to ten wet-cups applied to the right hypochondrium; (b) six leeches to the anus (bleeding to run one hour after they have dropped in order to deplete the portal vein.)

B. Purging by means of drugs acting on liver and bile-secretion, viz.: Calomel, 10, 15 and never more than 20 centigrams a day, podophyllin from 2 to 3 centigrams a dose, euonymin from 5 to 10 centigrams in pill form. All three can be associated. The following formula is commended: Podophyllin and euonymin of each 20 centigrams with powdered licorice *q. s.* to make ten pills. Take one in the evening before the last meal or three hours after it.

Of course the milk diet is ordered, it acts like a diuretic and a cholagogue chiefly when taken with vichy water.—*Journal de Med. Int.* 15 Dec., '03.

TREATMENT OF DIABETIC COMA.—Alkali therapy has, of course, also been tried in coma itself. In this condition it is necessary to work quickly, and for this reason Naunyn has advised administering alkalies intravenously 35 to 40 grames of carbonate of soda (not bicarbonate) are dissolved in a litre of water. With care the whole litre can be injected at once. If necessary the infusion is to be repeated. It is dangerous to inject such strong solutions of soda subcutaneously, for gangrene almost invariably results. Infusion into the blood stream however, is remarkably well borne. We have repeatedly seen patients who were unconscious regain consciousness while the infusion was being performed. After the infusion of alkalies, the internal administration by mouth is the most valuable means at our command, and it is often possible to administer from 80 to 120 grams of carbonate of soda a day. According to the reports published by Naunyn and by A. Magnus-Levy and observations by von Noorden it is occasionally possible to overcome coma in this way and to restore the patient to a fairly

comfortable condition. Unfortunately such cases are the exception, and as a rule the favorable results, if they are obtained at all, are in the majority of cases transitory and of very short duration. Within a few hours or half a day usually fate claims its victim. —(*Diseases of Metabolism and Nutrition*, VON NOORDEN, 1903.)

Department of the Ear, Nose and Throat.

In charge of A. W. DE ROALDES, M. D., and GORDON KING, M. D.,
New Orleans.

GRIPPAL LABYRINTHITIS.—Since the earliest records of gripe epidemics it is well known that aural complications in this infectious disease are exceedingly frequent. The usual form is acute suppuration of the middle ear the result of infection through the medium of the Eustachion tube from the pharynx. The violent inflammation of the mucous membrane, so characteristic of the gripe, extends by continuity of structure along the tube and reaches the mucous membranes of the tympanum. This is often hastened by the constant efforts of blowing necessary to keep the nose free of secretion which effort forces the infectious secretion into the ear, where a focus of suppuration is set up.

Rozier describes a less frequent form where the infection extends to the labyrinth of the ear and attacks the auditory nerve endings causing serious and permanent deafness. When we consider how closely related are the structures of the middle ear and those of the labyrinth it is astonishing that this complication does not occur more frequently. It is fortunately rare, however, and but few cases have ever been recorded. Two forms are described; in one the labyrinth appears to be attacked without apparent involvement of the tympanum, as occurs in syphilis and mumps; and in the other form the labyrinthine involvement is secondary to tympanic suppuration. The author describes a case of this latter type where almost complete deafness with severe tinnitus and vertigo came on in the course of a middle ear suppuration from gripe. Treatment with pilocarpin was negative, although this remedy has given favorable results in some cases. Careful attention must be given to the drainage and disinfection of the middle

ear when suppuration occurs there.—DR. ROZIER, of Pau. *Annales des Maladies de l'Oreille, etc.*, Dec., 1903.

Department of Therapeutics.

In charge of DR. J. A. STORCK, New Orleans.

CORDITE EATERS.—A recent communication on this subject is published by J. W. Jennings (*Jour. Royal Army Med Corps*, Oct., 1903), relating to his experiences in the South African campaign. He observed personally a number of cases where the men ate one or more strands of the cordite, which they took from their cartridges. These strands measured about $1\frac{1}{4}$ inches in length and $1\text{--}25$ of an inch in thickness. The symptoms are similar to those produced by amyl nitrite, the headache being extremely violent. When taken with beer or tea, cordite produces heavy sleep, followed by stupor lasting from five to ten hours. It is difficult to awaken the patient from this deep sleep and the dullness continues for some time. When taken in solution an immediate exhilarating effect results, inciting almost to demoniacal actions. This lasts for several hours, and is then followed by a deep sleep. The author does not believe that the habit is at all universal in the army, and the symptoms and effects are sufficiently forcible and unpleasant to prevent any but the most depraved resorting to either as a cerebral stimulant or sedative.—*Medical News*.

POISONING BY LYSOL.—K. Liepelt reports 4 cases of poisoning by the internal use of this drug. The first case was in a girl of 16, who took five swallows of pure lysol. At once there developed pain in the neck and difficulty in swallowing. The mouth and throat were covered with a thick, gray crust. The stomach was then washed out, and sodium sulfate given internally. The patient recovered in about three weeks. The second case was that of a girl of 15, who had taken, with suicidal intentions, 100 grams of lysol. When first seen she was unconscious, and numerous rales were heard in the chest. The breath had a sweet odor, and the lips and tongue were covered with a slough. The stomach was washed out and Carlsbad salts administered. The patient had entirely recovered

in a month. The third case was that of a woman of 20 who took 50 grams of pure lysol. When seen two hours later she was unconscious, rales were heard in the trachea, there were trismus, tonic and clonic convulsions of the extremities, cyanosis of the face, and the corneal and pupillary reflexes were lost. The stomach was washed out freely, and oleum camphoratum given hypodermically. The patient recovered in two weeks' time. The fourth case was that of a woman of 22, who took 30 c.c. of lysol with suicidal intentions. When seen shortly afterwards, the lips and tongue were bright red, consciousness was lost, the pulse was small (108), and the temperature was 38.6°C. The stomach was immediately washed out. The urine contained albumin but no sugar. Liepelt has collected 41 cases of lysol poisoning from the literature. Of these, 11 were due to the external use of the drug, of which number, 4 died. Of the 30 remaining cases of poisoning by the internal use of the drug, 13 died. In only 3 of these thirteen cases was the stomach washed out. In the 17 patients that recovered, the stomach was washed out in 15. In one of the remaining two patients a high injection was given. Liepelt believes that lavage of the stomach is very important in these patients, and that the washing be continued until the water is returned clear. The heart should be stimulated energetically in poisoning by this drug.—*American Medicine*.

AN IMPROVED FORM OF ANTIDIPHTHERITIC SERUM.—The production of reliable serums in dry permanent form is one of the most satisfying achievements yet accomplished by the antitoxin makers. Dr. Roux the present head of the Pasteur Institute in Paris, France, the Roux whose formula is followed by all American serum makers, has so far perfected his methods that the Pasteur dry serum keeps its antimicrobial strength unimpaired for an indefinite period of time. It is put up only in 1 gram tubes.

A DRY ANTITETANIC POWDER.—MacFarland (*Journ. Amer. Med. Ass'n.*) says: "I was very much interested during December, 1902, by a description given me by Dr. Damaso Rivas, who, returning from the laboratory of Professor Calmette at Lille, related to me some experiments that he had seen conducted there, and in which he had participated, which showed that antitetanic serum, while not absorbed from the skin or mucous membranes, is readily absorbed

by denuded surfaces, and when the dry serum is dusted on wounds it is readily absorbed, and confers immunity on animals. I at once recognized the practical importance of this observation, and conducted a series of experiments to show how useful dry antitetanic serum as a dusting powder might be. It did not take many experiments to prove the correctness of Professor Calmette's observation.

"I feel that these experiments of Professor Calmette and myself should have a most important bearing on dispensary practice, and that particularly in those districts of our country where tetanus is known to be frequent, the powder should be systematically employed for dressing of wounds, and in lieu of the observations to which attention is directed in the opening of this communication, I would recommend a very wide application of the antitetanic serum for prophylaxis against tetanus in both human and veterinary practice."

CITARIN.—Chemically, citarin is anhydromethyl encitrate of sodium. Its action depends upon the liberation of formaldehyde which is set free in the blood and combines with uric acid, forming a combination which, according to the experiments of His and Paul, is very soluble and easily eliminated. The other component of citarin aids in its action by reason of the fact the salts of organic acids are absorbed as carbonates in the system and thereby increase the alkalinity of the blood and its capacity for holding uric acid in solution.

NEW SALTS OF MERCURY FOR INJECTIONS.—Drs. L. Jullien and F. Berlioz (*Les Nouveaux Remèdes*, 1903, Vol. X., No. 10, p. 223) have obtained and have studied several new soluble salts of mercury for the treatment of syphilis. They have combined a cacodylate of ammonium with an oxide of mercury, forming a mercurial cacodylate, which results in a gray powder very soluble in water, containing at least 56 parts of mercury in 100. In tests on at least fifty patients a dose of 1-6 to 1-3 of a grain has been very well borne. Another salt, the ammonium-chloro-mercurate, is made by dissolving the yellow oxide in the solution of ammonium chloride. This seems to be better borne than corrosive sublimate, although it has been found at times that injections are painful. The dose is the same as sublimate.—*Am. Jour. of the Med. Sciences.*

THE NERNST LAMP IN THERAPEUTICS.—Dr. William Rollins, (*Boston Medical and Surgical Journal*), “Ether waves from two forms of electric lamps are now used extensively in therapeutics in Europe and to a less extent in America. Where short ether waves are required the arc is the more suitable, as the temperature is higher, making the proportion of short waves greater; and having no glass covering like the incandescent lamp there is no absorption from this source. Glass absorbs practically all the waves shorter than 300 u. u., as does the atmosphere those given out by the sun. During the past year I have made experiments with Prof. Walter Nernst’s lamp, in which a rod containing a preparation of zirconia is heated by an electric current. This like the arc requires no glass covering, though it is supplied with one. Loss of short waves is therefore avoided. The light is well suited for use in therapeutic cabinets in which an even distribution of radiant energy is desired and obtained by using many incandescent bulbs—over ninety in one of Dr. Kellogg’s. A second advantage over incandescent bulbs is that the consumption of current for the number of light waves is greater, less of the current being converted into the longer heat waves.”

Miscellaneous.

LEPROSY IN INDIA.—The public must be warned against placing implicit reliance on the dicta of specialists, and even of commissions of medical enquiry. Some few years back a Leprosy Commission was appointed, and moved rapidly over India in a cold season taking evidence. The results of these enquiries are found in some of the most misleading conclusions we have ever seen. They said that leprosy was neither contagious nor infectious, and deprecated any segregation of the leper, as had been done in this and other countries. In consequence of these deductions there has been a laxity with reference to leprosy seclusion painful to contemplate. No one who has lived any length of time in an Eastern land, but must see how fearfully wide are the ravages of this dreadful plague, and how utterly paralysed human skill and medical science are before it. No one can propose a remedy. No

one has a specific. And yet we are deliberately told that there is no danger from contact or infection. We are glad to see that Dr. Hutchinson, M. D., L. L. D., and F. R. S., the "world renowned specialist and well known Consulting Surgeon," thinks differently from the Leprosy Commission. He said in reply to a press interviewer, "I hold that it is not infectious, except from the hands of a leper which contaminate food. If a child were to take food from the hands of a leper with discharge on them, I think that would be a means of contagion." The first part of the reply and the last part contradict one another. The exception indeed must hold good as proving the rule that leprosy is communicable. If taken internally the virus of leprosy may affect a healthy person in the way referred to by Dr. Hutchinson, why should not the same infection be communicated from the leper to the pure person by external contact? Every one knows how easily scabies can be given by the merest touch, and surely the virus of lepra is much more deadly than the other. Instances are only too common, as in the case at Molokai, in proof of the deadly nature of contagion and infection by the mere residence with lepers, in the leper atmosphere. It is all nonsense to say, as Dr. Hutchinson does, "I have no fear myself, I shall go into leper houses, I have done so already on many occasions." This is no proof that leprosy is uninfected. People have gone to the bedside of cholera patients, and have stayed by dying people in their death struggles, and have held them up, etc., and come away secure. We do not, however, feel stupid enough to say that we believe cholera to be other than a communicable disease. The same may be predicted of plague and any other deadly disease. It is assertions of the kind made by Dr. Hutchinson, that render people careless and indifferent of consequences, simply because persons escape contagion occasionally. Just as wise would it be to say that live bullets on the battlefield have no killing power, because a few escape them.

It is a very humiliating position that this learned specialist has to take after all when he admits: "I don't hope, even with all my investigations, to find a remedy." And yet in the same breath he confidently affirms: "The only remedy will be not to eat badly salted fish." Hundreds of lepers exist in all parts of the world, India included, who have never even seen the ocean, and have never been fish or flesh eaters. Amongst vegetarians, as well as among

fish and flesh eaters, the ravages of this fell disease have been prevalent for centuries. In the ancient Israelitish nation leprosy was acknowledged as a dangerous infectious disease; and yet, although the nation in the time of its greatest power, when it occupied all Syria and Palestine, and had its highest population was as much affected by leprosy in the interior as around the coasts. In Russia inland tracts of country are as greatly scourged by this disease as any of the seaport towns and cities. The fact undoubtedly is, that any peculiar diet cannot be held accountable for the disease. That it is hereditary no one can doubt, as also that it is both contagious and infectious to a high degree. It is absolute waste of time for globe trotters, however skillful and clever they may be, to come, skim along over the land in a short cold weather trip, and then pretend to know all about this disease. If Dr. Hutchinson will come and live in India, and for two or three years will allow himself to be experimented on, since he is so sure as to be able to announce his theory, that "leprosy is not infectious," and in that time he will live among lepers, in a leper home, then people may have a basis of faith in the theory that leprosy is not infectious. Or if such a trial is too much of a bad thing, let Prof. Hutchinson come and live in India, and move about the country, staying weeks and months in leper centres. Then he will be able to get sound opinions from people entitled to give them, and may have to change all his present theorizing, and agree with old time history, that the disease is virulently contagious, infectious and hereditary. The very list of inquiries given by Dr. Hutchinson proves how much need he has to take time to understand the surroundings of this dreadful scourge of humanity. He proposes (1) To enquire into the trade of fish, the modes of curing, the quantity and estimation. (2) To see whether the statement that fish is not obtainable in certain districts is true or not. (3) To enquire of lepers whether lepers have been salted or dried fish eaters. (4) When denied, to enquire when leprosy began and under what circumstances. (5) To estimate proportion between high and low caste lepers. (6) To visit places where leprosy is said to be increasing. (7) To determine commensal communication from *de novo* development. (8) To enquire for sections, or hill tribes free from lepra who live adjacent to sufferers. There is one other inquiry, viz., to see "whether the statement made by certain Brahmins and so on, that

they have never eaten fish is trustworthy." We trust the Professor will be able satisfactorily to prosecute his enquiries, but after all, it would be better to stay in India, and make a permanent life business of the undertaking. The man who discovers the originating cause or causes of leprosy will be valued as worthy of a monument in marble in every city of the world, since with the discovery of the origin and the cause, the application of a specific remedy of preventive method will follow. That there are causes is evident. That man, with all his boasted gifts, has failed to discover them is also evident in the most painful manner, in this as well as in other directions." [An editorial Commentary on Dr. Hutchinson's trip to India to "study" leprosy, *en passant*.]—*Indian Lancet*.

A HANDY ARRANGEMENT.—The more we read and think about that twin-brained Colorado *dinosaur* the more we are impressed with the possibilities belonging and appertaining to such an animal. There being no newspapers in the days when the great lizard wriggled or crawled amid the dark swamps of Colorado, we have no account of his method of conducting himself or just how his double brain helped him in his business.

Modern scientists have developed a wonderful faculty of theorizing on subjects of this nature. Give one of them a bone from any animal, it matters not if it lived millions of years ago, and he will proceed to reconstruct the animal in theory, giving its size, appearance and habits, and will even tell the food it lived on, if required. And so it has been in the case of the great *dinosaur* of Colorado whose skeleton Professor Farrington is now mounting in Chicago. He is sure the animal had two brains, and in this he is to some extent sustained by Professor Marsh, of Yale, who says of one of the same family of animals, that the second or rear brain was much the largest and that "it was necessary, in order to work the powerful hind legs and tail." Likewise, Professor Farrington, speaking of his great find, declares that "in order to control its huge body it needed a second brain, and this was to be found in the pelvis."

Something of the sort evidently obtained in the case of *dinosaur brontosaurus*, to give him his full title. From the little we know of the swamps and forests of Colorado say, ten million years ago, it required good judgment for such a huge animal to

get about with safety, and here is where the double brain got in its work. While the prow of the creature was picking its way through the woods with the help of its limited brain, the other and larger brain, which was situated near the rudder, enabled the rear end of the combination to get along without colliding with everything in the neighborhood. It was an excellent and well devised arrangement to enable such a huge and apparently unwieldy animal to slosh around through the prehistoric wilds with anything approaching safety and comfort.

The one hitch which some unbelievers will find in the program is that the two brains might not always work in harmony, and that would cause trouble. If the front part of the animal wanted to stop to eat and the rear part wanted to hurry home before the lights were put out, or if the front end got in a hurry and the other wanted to sit on a log and rest, how could they settle it? And the head end might wish to turn to the left while the rear preferred another direction, and that would cause more trouble. However, as the two brains were connected by the spinal cord, perhaps we may reasonably conclude that they were bound to act in concert, and that both acted together in such manner that there would never be any conflict between them.

Reading about this monster we have wondered how the same system would operate in the case of a human being. There are a few of us so blessed with a sufficiency of brain matter that one is sufficient for all ordinary purposes, but there are others whose small brain cavities do not hold enough to do business with, and they might be better off with a duplicate in some portion of the anatomy. We don't know just where the other one would be located, but suppose the scientists could pick out a place for it. However, it isn't likely that any change in this respect will be made, and human beings will have to worry along with a single brain. They are behind the *dinosaur brontosaurus* however.—*Exchange*.

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary, 163 University Place,
New Orleans.

NEXT MEETING, NEW ORLEANS, LA., MAY 10, 11, 12, 1904.

OFFICERS—President, Dr. J. M. Barrier, Delhi; 1st Vice President, Dr. L. G. LeBeuf, New Orleans; 2nd Vice President, Dr. F. J. Mayer, Scott; 3rd Vice President, Dr. Oscar Dowling, Shreveport; Secretary, Dr. Wm. M. Perkins, New Orleans, Treasurer, Dr. M. H. McGuire, New Orleans.

COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St Charles St., New Orleans; S. L. Williams, Sec'y, 5th Cong. Dist., Oak Ridge; J. F. Buquoi, 1st Cong. Dist., Point-a-la-Hache; F. R. Tolson, 3d Cong. Dist., Lafayette; N. K. Vance, 4th Cong. Dist., Shreveport; C. M. Sitman, 6th Cong. Dist., Greensburg; C. A. Gardiner, 7th Cong. Dist., Bristol.
Chairman Committee on Arrangement, Dr. L. G. LeBeuf, New Orleans, La.

Preparations for the 1904 meeting are being actively pushed. The announcements for the program, which are printed below, represent only a part of the scientific work already arranged for. The March number of the JOURNAL will contain quite a number of the program announcements. Last year the Arrangement Committee found it impossible to make adequate provision for all the papers handed in, and with the much larger membership and attendance which we will have this year, it is evident that those who delay sending in the titles of their papers are apt to be omitted from the program. Meeting places have already been arranged for and correspondence with intending exhibitors has begun. It is intended that the exhibits shall be made an interesting feature of the meeting. A number of parish societies held meetings during the month of January and the March issue of the JOURNAL will contain reports of as many of these as are heard from by February 10.

A new plan is being followed by the Chairmen of some of the sections, at the suggestion of the Committee on Scientific Work. Instead of confining their attention to a single subject announced for the section, they are endeavoring by personal correspondence and circular letters to work up the parts of the program which belong to their sections.

SUBJECTS OF SECTIONS AND PAPERS FOR THE 1904 MEETING.

General Medicine.—"Complications of La Grippe." Chairman, Dr. W. G. Owen, Whitecastle.

Surgery.—"The Importance of Surgical Tuberculosis to the General Practitioner." Chairman, Dr. H. B. Gessner, 830 Canal street, New Orleans.

Materia Medica and Therapeutics.—The Chairman, Dr. R. E. McBride, Houma, announces that his section will be represented by miscellaneous papers and will not have a set subject for discussion. This plan will be followed by the chairmen of several sections, who expect in this way to accomplish more real section work than was done under the old plan of announcing as the subject of a section the title of a paper which was read by the Chairman. The Committee on Scientific Work hopes that this plan will be followed by other sections.

The Chairman, Dr. R. A. McBride, Houma, La., will write on "Fewer Drugs and a More Thorough Understanding of their Physiological Action." He also submits the following circular letter:

To the Members of the Louisiana State Medical Society:

GENTLEMEN—As Chairman of the Section on Materia Medica and Therapeutics I beg to solicit papers for that Section. It is the desire that the papers be on the same subject in line with the demands of this Section, as there will be no stock subject for discussion. Members intending to contribute to this Section will kindly send the titles of their papers as soon as practicable to the Chairman of Section, Dr. R. E. McBride, Houma, La.

Section on Quarantine.—"Yellow Fever Infection; with our Present Knowledge of the Conveyance of the Infection by the Mosquito and the Lack of Positive Information as to Infection Through other Sources, Would Quarantine Officials, as Protectors of Public Health in Yellow Fever Infection be Justified in Accepting the Mosquito as the Only Means of Carrying the Disease." Chairman, Dr. J. N. Thomas, Quarantine.

Dermatology.—"Pruritus Considered from a General Standpoint." Chairman, Dr. H. E. Menage, 624 Gravier street, New Orleans.

Ophthalmology.—"Some of the More Common Diseases of the Eye." Chairman, Dr. R. F. Harrell, Ruston, La. Dr. Harrell has written over 100 letters asking for contributions to this section and expects to have his part of the program ready for publication in the March number. He himself will write on "Dacryocystitis."

Oral Surgery.—"Dental Caries and Popular Fallacies." Chairman, Dr. George J. Friedrichs, 641 St. Charles Street, New Orleans.

IN ADDITION TO THE ANNOUNCEMENTS MADE BY CHAIRMEN of Sections, the following titles have been sent in:

"Chloroform Anesthesia," Dr. Alfred Jacoby, New Orleans.

"Parasitic Diseases in Men," Dr. Edmond Souchon, New Orleans.

A number of other original papers have been promised, of which the titles will be announced next month. The Committee begs to remind the members that in making up the program precedence is given to those whose titles are first received and also that it is impossible to have more than 30 or 40 papers on the program. Members wishing a place on it had better send in their titles at once.

NEWS ITEMS.—Dr. and Mrs. L. A. Gaudin, of Convent, La., have a little daughter.

Morehouse Parish is to have a reorganization meeting on January 27.

The Special Committee on State Medical Law must be working very hard, for they have not had time, apparently, to let this Department hear from them for lo! these many days.

DUES.—Members, Parish Secretaries and Treasurers are reminded that the Secretary no longer collects the dues. Under our new constitution all money should be sent to our Treasurer, Dr. M. H. McGuire, 731 Carondelet, street, New Orleans, La.

THE NEW EDITION OF PARISH CONSTITUTIONS, containing all corrections and improvements, was printed in January and copies have been distributed to the Secretaries of Parish Societies.

THE AMERICAN MEDICAL ASSOCIATION is revising its roll of Louisiana members and will drop all who are not members of the Louisiana State Medical Society. The State Society is also revising its roll and in parishes where it has chartered Component Societies will decline to receive 1904 dues from anyone who is not a member of his Parish Society.

SOCIETIES CHARTERED SINCE PUBLICATION IN JANUARY JOURNAL.

SHREVEPORT MEDICAL SOCIETY. Organized ———. Chartered December 23, 1903. Charter members, 38. Meets first

Tuesday of each month President, Dr. N. K. Vance; Vice President, Dr Oscar Dowling; Recording Secretary, Dr. T. D. Boaz; Corresponding Secretary, Dr. W. E. Hawkins; Treasurer, Dr. G. C. Chandler. Oother charter members are: Drs. Louis Abramson, Ashton Blanchard, I. M. Callaway, R. C. Campbell, H. C. Coty, J. L. Danos, W. L. Dickson, J. C. Egan, W. L. Egan, L. H. Fisher, T. G. Ford, F. J. Frater, R. A. Gray, R. H. Gray, J. F. Griffin, Edgar B. Hands, S. H. Hicks, Randell Hunt, George B. Lawrason, J. M. Ledbetter, W. M. Ledbetter, J. T. O'Leary, R. M. Penick, H. S. Pierson, T. E. Schumpert, J. A. Selby, C. C. Sims, M. F. Smith, W. K. Sutherlin, all of Shreveport, and Drs H. L. Alison, Caspiana; F. S. Furman, Spring Ridge; W. L. Kimbell, Bayou Lachute; A. E. Pardue, Blanchard.

PLAQUEMINES PARISH MEDICAL SOCIETY. Organized February 5, 1903. Chartered December 24, 1903. Charter members 9. Meets annually, on January 20. President, Dr. J. N. Thomas, Quarantine; Vice President, Dr. O. V. Schayot, Pointe-a-la-Hache; Sec.-Treas., Dr. J. F. Buquoi (since removed to St. James' Parish.) Other charter members are: Dr. Thomas Y. Aby, Quarantine; H. L. Ballowe, Diamond; G. A. B. Hays, Jackson (East Feliciana Parish); J. R. Johnson, Buras; J. H. Lamb, Port Eads; C. P. Wilkinson.

REPORTS OF PARISH SOCIETY MEETINGS.

RICHLAND PARISH MEDICAL SOCIETY met at Delhi, January 6, and held an informal discussion on "Pneumonia." After an interesting meeting they were entertained at dinner by Dr. J. M. Barrier, where they held discussions on China, about the relations of Turkey with Greece and other European matters. Out of eight members five were present and two more traveled twelve miles, but missed the train. Three new members were admitted. Present membership, 11. Next meeting will take place at Rayville, Wednesday, April 6.

FELICIANA MEDICAL SOCIETY held its first quarterly meeting at Jackson on January 12. Five members present: Drs. S. L. Singletary (President), E. C. McKowen (Secretary-Treasurer),

A. R. Holcomb, R. P. Jones and J. W. Lea. An interesting discussion on "Pneumonia" was opened by Dr. Holcomb and participated in by all the members. Discussions on "High Temperature" and "Malarial Hematuria" followed. Dr. R. P. Jones reported a temperature of 108 degrees, with authentic witnesses. Patient recovered. Drs. William W. Burekhalter, W. D. Wall, Sr., S. D. Wall, Frank M. Thompson and E. M. Toler were elected to membership. Next meeting at Clinton, Tuesday, April 12, 1904, at 11 A. M.

ASSUMPTION PARISH MEDICAL SOCIETY held its annual session at Napoleonville on January 14, five members present. Dr. T. B. Pugh (President), delivered an address on "The Relations of Physicians to Each Other." Papers on "Croupous Pneumonia, Its Prevalence and Treatment," by Dr. A. A. Landry and "A Case of Puerperal Eclampsia," by Dr. T. B. Pugh, were freely and ably discussed by all present. The following officers were elected for 1904: President, Dr. T. B. Pugh, Napoleonville; Vice President, Dr. A. J. Himel, Napoleonville; Secretary-Treasurer, Dr. A. A. Landry, Paincourtville. The President appointed the following committees: On Scientific Work, Dr. A. A. Landry, Chairman, Drs. Fulton Rogers and H. A. LeBlanc; on Public Health and Legislation, Dr. A. A. Aucoin, Chairman, Drs. A. J. Himel and E. U. Bourg; On Entertainment, Dr. A. J. Himel, Chairman, Dr. C. Himel and H. C. Dansereau. All present not already members of the A. M. A. applied. The benefits of organization are being increasingly appreciated in Assumption Parish.

Medical News Items.

ORLEANS PARISH MEDICAL SOCIETY.—The Inaugural Meeting of the year 1904 was held on January 9, with a large membership present. The Secretary, Dr. S. M. D. Clark, and the Treasurer, Dr. W. H. Seaman, detailed the prosperity of the Society, the former showing the membership at 210, the largest in the history of the Society; and the latter announced a fair balance in bank and that there were no delinquents.

The Librarian, Dr. H. J. Dupuy, rendered an interesting report showing a large number of accretions during the year, mostly donated, but several important current works had been purchased. The total of bound volumes up to date in the library amounted to 4201.

The retiring President, Dr. E. J. Graner, delivered a happy address, relating the successful year past, the A. M. A. meeting, and the affiliation with the State Society. The increased membership, interesting scientific proceedings and the general prosperity of the Society were referred to.

He was followed by the incoming President and other officers, who, in their several turns, thanked the Society in appropriate terms for the honor conferred. The Rev. Beverly Warner was the orator of the evening and kept the attention of his audience during a most interesting address, during which he dealt with the physician and the atmosphere of his work as influencing morality and citizenship.

A repast was provided and a social occasion was made of the balance of the evening.

The following were the officers installed, as well as the Committees announced by the new President:

President, Dr. M. J. Magruder; *Vice Presidents*, Drs. J. A. Storck, Wm. M. Perkins, O. Joachim; *Secretary*, Dr. S. M. D. Clark; *Treasurer*, Dr. E. J. Huhner; *Librarian*, Dr. Homer J. Dupuy; *Directors*, Drs. E. J. Graner, E. H. Walet and M. M. Lowe.

STANDING COMMITTEES FOR 1904.—*Scientific Essays and Discussion*—Drs. Isaac Ivan Lemann, Chairman; C. J. Miller, Philip Asher, M. H. McGuire, Wm. Scheppegegrell, John F. Oechsner.

Judiciary—Drs. E. L. McGehee, Chairman; A. C. King, A. Nelken, J. J. Ryan, S. L. Théard, T. S. Dabney.

State Medicine and Legislation—Drs. John Callan, Chairman; F. W. Parham, H. D. Bruns, A. G. Friedrichs, J. D. Bloom, W. T. O'Reilley.

Library—Drs. Homer J. Dupuy, ex-officio Chairman, A. Jacoby, J. B. Elliott, Jr., Jules Lazard, C. N. Chavigny.

Publication—Drs. S. M. D. Clark, Chairman; E. J. Huhner, M. M. Lowe.

President's Address—Drs. Isadore Dyer, Chairman; Gordon King, S. P. Delaup, R. J. Mainegra.

Secretary's Report—Drs. J. N. Roussel, Chairman; Edmund Moss, C. William Groetsch, H. N. Blum.

Treasurer's Report—Drs. J. G. Dempsey, Chairman; E. W. Jones, J. Barnett, L. Szabary.

Librarian's Report—Drs. L. D. S. Gaster, Chairman; S. C. Landauer, George Stumpf, J. S. Hebert.

Necrology—Drs. J. B. Guthrie, Chairman; G. F. Patton, Quitman Kohnke, A. C. Eustis.

Domicile—Drs. L. G. LeBeuf, Chairman; H. B. Gessner, E. Denegre Martin.

MARRIED—Dr. John R. M. Dillon and Miss Laura Beckwith at St. Peter's Church, Albany, New York, January 5, 1904.

Dr. R. R. Arceneaux and Miss Anna S. Unkel at Welsh, La., on January 13, 1904.

Dr. H. J. Feltus and Miss Lotta C. Arbour at Baton Rouge, La., January 13, 1904.

THE HAHNEMANN MEDICAL ASSOCIATION OF LOUISIANA met during the past month in New Orleans and elected the following officers: President, Dr. C. R. Mayer; Vice President, Dr. H. M. Fish; Treasurer, Dr. R. D. Voorhies; Secretary, Dr. John T. Crebbin.

THE NINETY-EIGHTH ANNUAL MEETING OF THE MEDICAL SOCIETY of the State of New York was held January 26, 27 and 28, 1904, in the City Hall, Albany.

DIED.—Dr. T. G. Birchet, at Vicksburg, January 1, in the sixty-eighth year of his age. The Doctor came originally from Virginia and leaves behind a record full of usefulness and of honor as a soldier, physician and citizen.

THE N. O. ACADEMY OF STOMATOLOGY met at the N. O. College of Dentistry on Wednesday, January 27, 1904.

ANENT THE ANTI-TOXIN TRUST.—The daily Press recently has been full of sensational articles intimating that prices of diphtheria anti-toxin have been raised inordinately, and with articles strenuously denying this. Along this line we have received communications from several manufacturers explaining the probable occasion

for the sensational side of the question. Instead of having a variety of strengths of this serum, a uniform strength has been arranged for which a price actually less than formerly charged is now made. Whatever dissatisfaction may have arisen in this matter more than likely stopped with the lay public, as the medical profession were most probably informed.

OBITUARY.—Shreveport, La., Jan. 16, 1904.—At a meeting of the Shreveport Medical Society held January 16th, 1904, the following resolutions were introduced by the committee appointed for the purpose on January 11th and adopted:

IN MEMORIAM.—Dr. L. H. Fisher graduated from the University of Louisiana in '52. He was a member of the old North Louisiana Medical Society, of the Shreveport Medical Society, and also an honored member of the Louisiana State Medical Association.

In the death of Dr. Fisher the profession of medicine has lost a noble and upright gentleman, one of strictest integrity of principle and loftiest conceptions of moral and spiritual obligations.

To do right was ever his motto and the escutcheon of his honor was never dimmed or tarnished by subterfuge or falsehood. He lived and died above fear and above reproach; a loving father, a kind and generous husband and a progressive and useful citizen.

In his youth he served with courage and distinction as Assistant Surgeon and Surgeon in the Army of the Confederacy, and, after a long life of usefulness and success, passed the remainder of his existence in leisure and dignity.

The Doctor was born in May, 1827, in the city of East Liverpool, Ohio, of old Puritan extraction, and every action of his life gave impress of grave and noble associations, coupled with lofty and sublime ideals. He died January, 10, 1904, full of humility, peace and glorious expectation.

When a good man changes his habitation, heaven and earth are both the gainer, for good thoughts and good deeds are vibrated forever through the eternity of the spheres.

J. C. EGAN,
R. A. GRAY,
RANDELL HUNT,
R. C. CAMPBELL,
J. F. O'LEARY.

Committee.

THE SHREVEPORT MEDICAL RECORDER made its bow to the public on January 1st in its initial volume. It is a creditable effort on the part of our confrères in north Louisiana and the JOURNAL extends the hand of fellowship and of good will.

The editors of this new periodical are Drs. Oscar Dowling and Louis Abramson (associate editor), of Shreveport and R. H. T. Mann (associated editor), of Texarkana, Arkansas. The Collaborators number quite a few of Texas, Louisiana and Arkansas physicians and the purpose of the *Recorder* seems well outlined.

A number of short articles are presented in the first number, the leading article being from the pen of Jno. A. Wyeth, of New York. The illustrations include excellent photo-cuts of Dr. J. C. Egan, of Shreveport, the late Dr. B. F. Eads, of Marshall, Texas, and Dr. R. W. Read, of Texarkana, Arkansas.

The whole appearance of the *Recorder* is clean and we hope for it a successful future

THE INTERSTATE MEDICAL JOURNAL has initiated the New Year with an excellent abstract department—under the direction of well-known specialists in the several lines of subjects presented. It is a long step forward and merits a deserved commendation.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

Progressive Medicine, Vol. 3. Sept. 1903. Lea Brothers & Co., New York and Philadelphia.

This volume includes Diseases of the Thorax and its viscera, the heart, lungs and blood vessels. Dermatology and Syphilis. Diseases of the Nervous System. Obstetrics. The year's progress and advances on these topics are carefully presented forming an abundant source of information, Syphilis is presented in connection with Dermatology and very properly so; in a rich article, by the way. It is an act of justice to the genial editor and a real service rendered to the profession to praise the worthy periodical and to keep it constantly before the reader's eye.

E. M. D.

International Clinics, Vol. 3. 13 Series, 1903. J. B. Lippincott, Philadelphia.

Volume III (thirteenth series) presents six masterly articles on the diseases of the Gall-Bladder and Gall-ducts, four on treatment of Pneumonia, Gastric Cancer, Rectal Diseases by Carbonic Acid, Typhoid Fever by serum, five on Medicine, of which Charles F. Craig's on Malarial infections is strikingly practical, and finally six good articles on Surgery. As usual, this volume like its predecessors, is notable for its illustrations, colored plates, plates and figures.

E. M. D.

Modern Materia Medica and Therapeutics. By A. A. STEVENS, A. M., M. D. Third Edition, Entirely Rewritten. W. B. Saunders & Co., 1903.

The author has exercised much good judgment in the revision of this edition. The articles on the old and generally approved remedies have been brought up to the present state of our knowledge, while those articles on the new remedies pertain to such only as experience has shown to possess real merit.

The drugs are classified according to their pharmacologic action.

The author says of new tuberculin: "A substance known as new tuberculin, which is really a watery extract of the soluble portions of tubercle bacilli, has also been tried as a remedy in tuberculous affections, but with no better results than were achieved with the older product."

The articles are well written and this book will win its place in medical literature.

STORCK.

A Manual of Electro-Static Modes of Application, Therapeutics, Radiography and Radiotherapy. Second Edition. By WILLIAM BENHAM SNOW, M. D. A. L. Chatterton & Co., New York, 1903.

To the physician not acquainted with the operation of the static machine, this volume will prove a valuable guide, as the instructions given are clear and concise. The writer himself, an experienced electro-therapist, has had exceptional opportunities under Prof. William J. Morton, of New York; hence he is fully competent to discuss the many little details connected with the successful operation of static machines. Those who wish to familiarize themselves with the physics of static electricity the author recommends to standard works on the subject. Skiagraphy and radiotherapy come in for a fair share of treatment, a separate section being devoted to them.

"At best, a work at this time can only mark the progress of the employment of electricity and the Roentgen ray."

STORCK.

A Text-Book of Chemistry, For Students of Medicine, Pharmacy and Dentistry. By EDWARD CURTIS HILL, M. S., M. D. F. A. Davis Company, Philadelphia, 1903.

This work attempts to cover too much ground, and the author has deemed it advisable to condense in places where a little more expansiveness would have been preferable, especially as the work is intended particularly for students' use. However, the matter which it contains, though brief, is accurate.

STORCK.

Physics and Inorganic Chemistry. A Manual for Students and Practitioners. By ALEXIUS MCGLANNAN, M. D. Series Edited by V. C. PEDERSON, A. M., M. D. Lea Brothers & Co., Philadelphia and New York, 1903.

The student will find this a convenient working manual for laboratory use. Questions have been arranged for self-examination, in this way facilitating the student in his studies.

A great many of the illustrations are from Simon's Manual of Chemistry to which book the author makes due acknowledgment.

STORCK.

Uric Acid as a Factor in the Causation of Disease. By ALEXANDER HAIG, M. A., M. D. OXON. F. R. C. P. P. Blakiston's Son & Co., Philadelphia, 1903.

The work of Dr. Haig on uric acid as a causative factor in high blood pressure, headache, epilepsy, mental diseases, asthma, hay fever, paroxysmal haemoglobinuria, anaemia, Bright's disease, diabetes, gout, rheumatism, bronchitis and other diseases entitles this book to a high place in progressive medicine. His profound knowledge of the subject of uric acid commends his work to all who would become well informed along this particular line of investigation, and who would keep abreast of the discoveries, concerning the influence of uric acid in certain pathological conditions.

He says: "What eleven years ago in the First Edition was little more than possibility or probability is now absolute certainty, and a certainty which can be made visible to the untrained and unaided eye in a few moments.

This work deserves an honored place in medicine.

STORCK.

The Practical Medicine Series of Year Books, Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D. Volume VIII. *Materia Medica and Therapeutics, Preventive Medicine, Climatology, Suggestive Therapeutics, Forensic Medicine.* Edited by GEORGE F. BUTLER, PH. G., M. D., HENRY B. FAVILL, A. B., M. D., NORMAN BRIDGE, A. M., M. D., DANIEL R. BROWER, M. D., HAROLD N. MOYER, M. D. July, 1903. The Year Book Publisher, Chicago.

The excerpts appearing in this book are marked by conciseness.

Of Adrenalin, it is said: Adrenalin subcutaneously is indicated on theoretic grounds for the vaso-motor collapse following cocain or chloroform poisoning and possibly the shock after operation.

On the spread of cancer the author says: "The statistics of the German Health Office as reviewed by Dr. Wutzdorff, sustain the view that cancer is increasing faster than the increase of population. In Prussia the increase in twenty years from 1875 to 1895 was in men, 129.1 per cent.; in women 109.9 per cent., while the increase in population was for men 23.3 per cent. and for women 24.2 per cent. The figures for the whole German empire from 1892 to 1898 show an increase in the deaths from new growths of from 2.6 per hundred deaths from all causes, to 3.5 in 1898. The proportion per 100,000 of the population increased from 59.6 to 70.6. Similar statistics for other countries show a similar increase. It seems evident that the increase is not wholly in the classes of greater age, but that the disease appears at an earlier age than formerly. While women suffer more frequently from cancer than men, the increase in frequency has been greater

among men than among women. In Germany, the disease is most common in the southern part."

The book is of convenient size for quick reference or review.

STORCK.

International Clinics, Volume II. Thirteenth Series, 1903. Edited by A. O. J. KELLY, A. M., M. D. J. B. Lippincott Co., Philadelphia, 1903.

This volume is a veritable repository of many excellent articles from the pens of well-known writers.

The article on the diagnosis and surgical treatment of disease of the pancreas by Drs. Weaver and Muller will be read with interest by the surgeon. The internist as well as the surgeon will find much information in Dr. Opie's article on the symptoms and treatment of disease of the pancreas. This subject is dealt with more in detail by Dr. Opie in his recent book, "Disease of the Pancreas, its Cause and Nature," the present article serving more to briefly review certain pathological changes affecting the gland and to point out their bearing upon chemical medicine.

STORCK.

Clinical Examination of the Urine and Urinary Diagnosis. A Clinical Guide for the Use of Practitioners and Students. By J. BERGEN OGDEN, M. D. Second Edition. W. B. Saunders & Co., New York and London, 1903.

A work of 410 pages divided in two parts. In part I chemical and microscopic methods are described for the examination of urine. The second part of the book treats of the diagnosis of disturbances and diseases of the kidneys and urinary passages and briefly enumerates the prominent chemical symptoms of each disease. The combination of these two subjects, the urinary chemistry and microscopy and the diagnosis of the disease of the kidneys and urinary passages, makes this little work specially valuable.

The book is well written and well illustrated. The second edition is proof that it is timely.

LERCH.

Clinical Pathology of the Blood, a treatise on the General Principles and Special Applications of Hematology. By JAMES EWING, A. M., M. D. Second Edition. Lea Brothers & Co., New York and Philadelphia, 1903.

The second edition of this excellent work on hematology is before us. The author states that he has incorporated the results of recent studies in this field and that this undertaking has required references in the text to about four hundred new articles and monographs which have been added to the bibliographical lists.

The work is eminently practical and the bibliographical lists added to the various chapters are of the greatest value to the student.

We have read with interest and pleasure and conscientiously recommend the book to physician and student.

LERCH.

Atlas of the External Diseases of the Eye, Including a Brief Treatise on the Pathology and Treatment. By PROF. DR. O. HAAB. Edited by G. E. DE SCHWEINITZ, A. M., M. D. W. B. Saunders & Co., Philadelphia, New York and London, 1903.

This is the best available atlas on the subject, and like its companion the atlas of ophthalmoscopy is of especial value to students and practi-

tioners who are far removed from the advantages of ophthalmic clinics. Dr. Haab being a man of large experience both text and plates are excellent. The work is one of real value and usefulness.

H. D. B.

A Text Book Upon The Pathogenic Bacteria. By JOSEPH MCFARLAND, M. D. W. B. Saunders & Co., Philadelphia, New York and London, 1903.

A fourth edition of this excellent work is sufficient evidence of its popularity and approbation. This work has been re-written and enlarged. The chapters upon Infection and Immunity are thorough, complete, and up-to-date. The Index of authors is a valuable addition to this work, as it greatly aids the students, engaged in bacteriological literature. The chapter on Yellow Fever has been somewhat extended by the introduction of new facts relative to mosquitoes. The reviewer desires to correct a statement in the author's work, page 530, viz.: "Wasdin and Geddings confirmed, in all points the work of Sanarelli, and believed *Bacillus icteroides* to be the specific cause of Yellow Fever. Archinard, Woodson and Archinard came to similar conclusions, and confirmed the work of Wasdin and Geddings, that the blood of Yellow Fever cases caused agglutinations with *Bacillus icteroides*, and no other organism." This is an error, because we have never confirmed the findings of Wasdin and Geddings, in so far as the *Bacillus icteroides* was the specific cause of yellow fever. As to the agglutination of yellow fever blood with *Bacillus icteroides*, this work was done by us, and not by Wasdin and Geddings.

This work is of great value, and is commended not only to students and physicians, but also to all those engaged in sanitary science.

JOHN J. ARCHINARD.

The Elements of Bacteriological Technique. By J. W. H. EYRE, M. D., M. T. F. S. R. EDIN. W. B. Saunders & Co., Philadelphia and London, 1902.

This work can not be too highly commended. The Author has so thoroughly, completely, briefly and concisely treated his subject, that no student can fail to appreciate its value. The methods for preparing solutions, stains, media, etc., are so clearly arranged, that they prove an excellent aid to the laborant in bacteriology.

This work will prove itself a good guide for students and a valuable reference for practitioners and those engaged in bacteriological work.

JOHN J. ARCHINARD.

A Text-Book of Pathology. By ALFRED STENGEL, M. D. Fourth Edition. W. B. Saunders & Co., Philadelphia, New York and London, 1903.

This volume represents modern pathology, and the application of pathologic facts to clinical medicine. The work is divided into two parts.—The first part treats of general pathology, and among the chapters worthy of note are: Inflammation, Progressive Tissue Changes, Diseases due to Bacteria and especially the chapter upon Animal Parasites, and Diseases caused by them. This volume gives fuller information upon Diseases due to Parasites, than any other of our American Text-Books of to-day. It is regrettable, that considering our tropical possessions, our newer text-books don't dwell more fully upon this subject.

The second part of this work treats on Special Pathology, systemati-

cally and clearly. A valuable addition to this work is an Appendix, treating of Technic and Pathologic Methods, practically and concisely. This book is recommended to students and practitioners as one of the best of its kind.

JOHN J. ARCHINARD.

A Dictionary of Medical Science, containing a full explanation of the various subjects and terms of Anatomy, Physiology, Medical Chemistry, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics Pathology, Bacteriology, Surgery, Ophthalmology, Otology, Laryngology; Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc. By ROBELY DUNGLISON, M. D., L. L. D. Twenty-third Edition, thoroughly revised by THOMAS L. STEDMAN, A. M., M. D. Lea Brothers & Co., Philadelphia and New York, 1903.

Dr. Thomas L. Stedman, who has revised the present edition of Dunglison's Directory, expresses aptly the position the work holds in medical literature, when he alludes to it as an institution. It can be truly called an institution, for few works have ever enjoyed the popularity for a brief season that has attended this one through its twenty-two editions extending back three quarters of a century.

Just as the first edition represented the advanced ideas of seventy-five years ago, the twenty-third edition now truly presents the needs and results of the twentieth century investigator.

According to the preface, over one thousand five hundred new words have been introduced in this edition, a large number of these being in the new science of immunity, so recently grown out of that of bacteriology, in protozoon biology, and in radiopraxis. It has been found necessary to introduce new illustrations, many of which are in colors. Dr. Stedman has endeavored throughout the work to preserve the identity of the author, and announces that those who made their first acquaintance with the language of medicine under the guidance of "Dunglison" will be glad to know that their old friend has not been revised out of all recognition. The work will maintain the position it has always held, for in addition to the excellent work of Dr. Stedman, the publishers have succeeded in presenting a product which is a model from the publishers standpoint.

MILLER.

A Text-Book of Obstetrics. By J. CLARENCE WEBSTER, M. D. (Edin), F. R. C. P. E., F. R. S. E. W. B. Saunders & Co., Philadelphia, New York and London, 1903.

The medical profession will welcome Dr. Webster as an author of a text book on this subject, for his name has been identified for years with some of the most valuable original worth that was being done, both in obstetrics and gynecology. His followers will now have the opportunity of reviewing in a condensed form the results of his tireless energy, both, in the field of scientific investigation and as a practical obstetrician. The author's previous contributions on various phases of the anatomy and physiology of pregnancy naturally prompts the reader to review first the chapters dealing with these subjects. Dr. Webster has for long been acknowledged as one specially qualified in this field and few if any text-books contain the exhaustive and at the same time practical information found in part first of his book under the heading of Pregnancy.

The chapters on the physiology of normal labor are also of special inter-

est on account of the authors extensive experience with frozen sections. Many new illustrations are presented here, which are actual drawings of his preparations.

The practical side of the work can be appreciated from the space and detail devoted to diagnosis and treatment. In the management of complications the directions are especially clear and instructive, a quality which will commend it to the general practitioner.

Dr. Webster has another qualification which entitles him to more than the usual consideration. He is equally well known as a gynecologist and obstetrician, a combination of immense value to one who is called upon to decide the indications and limitations of operative obstetrics. This is even shown in the last hundred pages of the book in which the subjects of artificial interruption of pregnancy, version or turning the forceps, Cesarian section, symphysiotomy and embryotomy are discussed and geneously illustrated.

The illustrative feature of the work is above the average, many of the illustrations being entirely original.

As a whole the book expresses the most advanced thought of modern obstetrics and will soon take a place as a standard work for both student and active practitioner.

MILLER.

Consumption a Curable and Preventable Disease, by LAWRENCE F. FLICK, M. D. Philadelphia, 1903.

There is no more practical work in the domain of medicine than the crusade against tuberculosis aiming at the education of the medical and non-medical public regarding essential truths on the subject of the White Plague. How many exaggerations have been excitedly flung *ex cathedra*; and the timid and the phobic and the ignorant who make up 95 per cent. of the public at large, given by nature to exaggeration, have amplified the dangers from tuberculosis God knows how many times. A ridiculous method that one is indeed, for a scientific purpose, to preach on tuberculosis with the anathemas of apostolic ardor. It is time to call a halt on these aberrations and the admirable little book before us is written with that purpose and the words of the author explicitly convey his idea, viz.: What a layman should know about it. We heartily commend this work, coming as it does at a most opportune time.

E. M. D.

A Text-book of the Practice of Medicine, by JAMES M. ANDERS, PH, D., LL. D., Sixth edition, thoroughly revised. Handsome octavo volume of 1300 pages, fully illustrated. W. B. Saunders & Company, New York, Philadelphia, London, 1903.

This is the sixth edition of this unexcelled work in as many years. Such a demand must be a gratification to the author and to the publishers alike. In this edition the general plan and principles of classification adopted in the previous editions have been preserved. The many tabular presentations of points in differential diagnosis have been retained. Differential diagnosis is a most important branch of diagnostics, and than this tabular method we know of no superior way of familiarizing the practitioner and the student with the outstanding features of simulating diseases.

Malaria, yellow fever, bacillary dysentery, cholecystitis, certain animal parasitic diseases, and the use of the X-rays in diagnosis and treatment

are fully discussed incorporating the results of the most recent investigations. Among the new subjects introduced are: Paratyphoid Fever, the Fourth Disease, Trypanosomiasis, Orthostatic Albuminuria, Transcortical Aphasia, Adiposis Dolorosa, and Amaurotic Family Idiocy. Every affection is treated separately, particular attention being paid to its clinical character, diagnosis and treatment. Evidently an immense mass of literature has been thoroughly digested, no pains having been spared to bring the entire book up to date, giving special reference to the daily needs of practitioners and students. In commending it, we believe we are recommending one of the best text-books on Practice of Medicine on the market.

E. M. D.

Transactions of the American Pediatric Society, Vol. XIV. 1902. E. B. Treat & Co.

This volume consists of twenty-six papers and clinical reports on a great variety of subjects. It contains also a complete index of all the preceding volumes, thus making this particular volume of peculiar value to all who are looking up authorities on pediatrics.

Modern Bullet Wounds and Modern Treatment with Special Regard to long bones and joints, field appliances and first aid. By MAJOR F. SMITH, of the Royal Army Medical Corps. J. & A. Churchill, London, P. Blakiston's Son & Co., Philadelphia, 1903.

This is a part of the prize essay of the Alexander Memorial Fund, written by a gentleman entitled to speak by reason of his experience in the Boer War it can not fail to interest the army surgeon as well as the civil surgeon, who played such a conspicuous part in that memorable struggle.

PARHAM.

Surgery, Its Theory and Practice, by WILLIAM JOHNSON WALSHAM. Eighth Edition by WALTER GEORGE SPENCER. P. Blakiston & Co., Philadelphia, 1903.

The first edition of this well-known work appeared in 1887 and was the fulfilment of a task undertaken at the request of the publishers that he would write "a small book on surgery." The preface to this first edition stated: The present work is designed to aid him (the student) in gaining a general insight into the theory and practice of surgery while he is yet engaged in practical work in the wards; at a time, that is, when such a knowledge should be of especial value to him. It is interesting to note the evolution of this work, three editions of which, the first, the seventh and the one now reviewed, are before us, from its 636 pages with 236 illustrations of the first to its 1196 pages and 622 illustrations of the last. By this increase it has probably lost in a certain sense one of the chief claims to favor with the medical student of the first edition, its brevity, but this is only apparent, for with however earnest an attempt at succinct and comprehensive statement, a work on such a subject as surgery must inevitably have grown in size because the field traversed has so enormously enlarged. The eighth edition comes as something of a monument to one whose life was singularly full of opportunity and honorable achievement. The preface was written in September, 1903, and Mr. Walsham died after a rather prolonged illness on Oct. 5, so that this preface must have been written practically on his deathbed. Mr. Walsham credits with most of

the work on this edition his co-worker in the other editions, Mr. Spencer, who has done his work well, maintaining the high standard hitherto established by their joint efforts.

The book may be cordially commended to students of surgery, for whom it was especially written, as a fair exposition of the present status of the surgical science and art written from the British point of view, not so comprehensive, perhaps, in its review of the development of surgery as is found in some of the best American Surgeries, but yet so systematic and thorough in its method as to make it one of the several valuable works on surgery a student should consult.

PARHAM.

A Treatise on Orthopedic Surgery, by ROYAL WHITMAN, M. D. Second Edition Revised and Enlarged. Lea Brothers & Co., 1903.

This is the latest book on Orthopedic Surgery, the preface bearing date of October of 1903. We think examination of the book shows that hope that "it fairly represents this department of medicine at the date of issue" has been fulfilled. The description of disease and deformity are concise and well calculated to give the student of orthopedics a clear and comprehensive view of the subject. Take the subject of clubfoot, for instance. Here the student cannot fail to grasp a fair idea of the whole subject. The rapid connection of deformity by Lorenz's method (which by the way is described in the previous edition published before Lorenz came to America) is clearly described with excellent illustrations. He commends the treatment by this method which, he states in this as in the previous edition (February, 1901), he has employed for many years."

The book is well adapted to the use of students, but ought to prove of great value to the general practitioner and surgeon who have not opportunity of devoting special attention to orthopedy.

PARHAM.

Modern Surgery. General and Operative, by JOHN CHALMERS DA COSTA. Fourth Edition, Greatly Enlarged and Entirely Reset. W. B. Saunders & Co., 1903.

We have had occasion once before in reviewing a previous edition of this work to speak in commendatory terms of it. Excellent as have been all former editions each succeeding edition shows the earnest desire of its author to keep it thoroughly abreast of the times, and this is no easy task seeing that surgery in these latter days has taken to seven league boots. The conscientious author of a successful work, therefore, when his publishers inform him that the copies of the last edition have all been sold and he must write a new edition will not hurriedly skim over the pages, make a few corrections and send it to the press as a new edition. He prefers rather to write it so that readers of the old must read the new if they would be informed of all that is worthy in surgery, and so Da Costa has found it necessary to revise the entire work although the last was published in 1900. That the author has done his work well is manifest in the references to the newest procedures in surgery such as Matas's arteriorrhaphy in the treatment of aneurism. Bidwell's skin-bridging method in colostomy (although he does not formally credit it to Bidwell.)

Ferguson's operation for hernia without cord displacement, Beck's operation for Hypospadias, Mayo's operation for Umbilical Hernia, Edebohl's renal decapsulation for Bright's Disease and the like. We fail to find description of Cantwell's operation for Epispadias, Wyeth's hot water

injection of vascular growth, Bacilli's carbolic acid injection treatment of tetanus and perhaps a few others.

The citation of Requier's unsuccessful prophylactic use of tetanus antitoxin (on p. 174) was, perhaps, unwise in a book intended for students, because misleading and deterrent of its employment in prophylaxis of a certain kind of wounds in the treatment of which there is abundance of evidence of its value; this evidence is particularly encouraging in the treatment of toy pistol wounds so prone untreated to be followed by tetanus and so seldom developing it when early treated by the antitoxin. But where there are so many excellencies, it seems invidious to speak of blemishes, for the book is so agreeable in style, brief, yet so comprehensive, and withal so conspicuously clear in its descriptions and so judicious in counsel, that we most heartily commend

PARHAM.

The American Text Book of Surgery. Fourth Edition, Sept. 1, 1903. W. B. Saunders & Co.

To the student and the general practitioner this book is now as familiar as the Bible to the Churchman and almost as indispensable. The sale of 40,000 copies of the previous editions attests its popularity. It is only necessary to add, then, that this edition "has been more thoroughly revised and more extensively changed than any of its predecessors," and the valuable work of Abbe, Crile, Coley, Cushing, DaCosta, Edebohls, Finney, Fowler, Frank, Frazier, Halsted, Mayo, Matas, Monks, Stewart, Wyeth, Weir and many others has received notice in this new edition.

PARHAM.

The Medical Epitome Series. Obstetrics, by W. P. MOUTON, M. D. Lea Brothers & Co., Philadelphia and New York, 1903.

The reviewer has given the closest attention to their little book, and concludes that while it may prove an inestimable aid to the student in his studies, it cannot be of any great value to the graduate in medicine.

MICHINARD.

A Manual of Obstetrics, by A. F. KING, A. M., M. D. Lea Brothers & Co., Philadelphia and New York, 1903.

The reviewer has on several occasions had the pleasure of reviewing this manual and can not but repeat that which he has always said of the book, that it is the best manual that has ever been offered to us. The reviewer frequently refers to it. It has a wonderful fund of information in a very small space.

MICHINARD.

The Medical News Visiting List for 1904. Lea Bros. & Co., Philadelphia and New York.

This is the time to get a visiting list for the year and the above is among the best. It is well printed on good paper and is neatly bound. The usual useful tables, revised, are included. The arrangement of the record portion is convenient.

The Physicians Visiting List for 1904. P. Blakiston's Son & Co., Philadelphia.

No practitioner can do without a visiting list. The above is one of the best presented for his choice. It has improved almost yearly and this is only its fifty-third year.

Surgical Diseases of the Abdomen, with Special Reference to Diagnosis, by RICHARD DOUGLAS, M. D. P. Blakiston's Son & Co., Philadelphia, 1903.

The distinctive value of this book is in a measure derived from its strict maintenance of a clinical and practical character. Its exposition of everything relating to the diagnosis, prognosis and indications for treatment of surgical diseases of the abdomen is unrivalled. Dr. Douglas has produced a work which is systematic in arrangement, comprehensive in scope and written in a concise and particularly pleasing style. No one can fail to admire the familiarity of the author with the details of his subject, his ability to extract the gist of what is worth repetition in the literature and withal the faculty of presenting his conclusions in a most interesting form. There is perhaps no similar book that contains so much of value to the student, general practitioner and surgeon. The work is really a series of monographs in which the literature of surgical diseases of the abdomen for the past two decades can be hastily reviewed. To the end of each chapter is appended a valuable bibliography which further adds to the usefulness of the volume.

The classifications are clear, and the pathology comprehensive, but, it is in the symptomatology and differentiation of diseases that the author easily excels. This part of the subject is presented in minutest detail and arranged in a manner only possible to one of varied and extensive experience combined with an intimate knowledge of the literature.

The indications and contra-indications for operative interference are accurate and concise.

Operative technic is justly omitted, since the chief aim of the work is to be a guide to diagnosis and the indications for operation.

From a literary standpoint, the work is admirable. A word of praise must be said for the publishers. The volume is particularly attractive and durable and deserves an extensive sale among medical students, general practitioners and surgeons.

MILLER.

Gynecology. A Text-Book for Students and a Guide for Practitioners, by WILLIAM R. PRYOR. D. Appleton & Co., New York, 1903.

Dr. Pryor has written this work in his usual forceful, dogmatic style. It is, strictly speaking, a surgical book in which the author's views and technic are presented in a clear, impressive manner and generously illustrated.

The usual chapters on anatomy and medical gynecology are omitted, thus reducing the volume to a convenient size and yet detracting none from its value, since these subjects are generally so incomplete. There is little to criticise in the book and yet there are many views expressed that are opposed by numerous authors of the present day. This would indicate that it can not be accepted as a text-book for students, unless studied in conjunction with other authorities. It is a book, however, that every gynecologist should carefully read, for it reflects the work of an observant surgeon of ripe experience, who has been an untiring seeker after truth in pelvic surgery.

The author is a firm believer in the superiority of the vaginal over the abdominal route when attacking pelvic suppuration and states as a general proposition, that, the removal of the uterus is indicated whenever both tubes and ovaries are to be sacrificed. This is a matter still under dispute and yet, Dr. Pryor's results justify his assertions. He has lost only one case in 229 vaginal ablations; truly a remarkable record in suppurative con-

ditions. It is also of interest to note his preference for clamps over ligatures in this work.

The author's operation for adherent retropositions is unique and is no doubt successful in his hands, but, it is hardly safe to recommend it to the beginner, or, the surgeon doing occasional pelvic work.

The work as a whole was needed. No one can read it without having fixed indelibly in his mind much that is invaluable in gynecological technic.

MILLER.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition, by PROF. CARL VON NOORDEN; Authorized American Edition Translated under the Direction of BOARDMAN REED, M. D. E. B. Treat & Co., New York, 1903.

In this monograph, Dr. von Noorden makes a plea against the treatment of all patients, regardless of individual peculiarities, by any prearranged scheme or method.

In the chapter "Simple Obesity in Otherwise Healthy Subjects," he says: "If we summarize all that has been said in this paragraph, we arrive at the conclusion that reduction cures are not urgently indicated in mild degrees of obesity but are nevertheless desirable for a variety of external reasons, and for the purpose chiefly of preventing the development of more advanced degrees of corpulency."

Of the different methods of reducing corpulency that can be adopted, slow methods are unquestionably to be preferred, particularly in women with large fat deposits in the abdomen, and in young subjects."

Under the head, "The Indications for Reduction Cures in Obesity Complicated with other Diseases," he says: "To judge from all the reports of numerous writers, and I may include a large clinical experience of my own, reduction cures instituted in a correct manner constitute one of the most valuable adjuvants to the treatment of circulatory diseases that we possess." These monographs represent the work of Prof. von Noorden and his pupils in an exhaustive study of metabolism and nutrition; they represent the personal views of the author and constitute a valuable contribution to the subject.

STORCK.

A Compend of Human Anatomy, by SAMUEL O. L. POTTER, M. A., M. D., M. R., C. P. Published by P. Blakiston's Son & Co., Philadelphia, 1903.

This Quiz-compend is a good condensation of Anatomy, and as such can be recommended as a *vade mecum* for students on the eve of examination.

American Edition of Nothnagel's Practice—Diseases of The Stomach. by F. RIEGEL, of Giessen. Edited with additions by CHARLES G. STOCKTON, M. D. W. B. Sanders & Co., Philadelphia, 1903.

In this age of a multiplicity of books good, bad and indifferent, it is refreshing to have the pleasure of reviewing one written by such an exceptional clinical master as Franz Riegel and edited by such a conscientious and polished a physician as Charles G. Stockton. A real treat is in store for those who will give careful perusal to this book, a Lucullan medical literary feast. A protagonist in this special field of medicine, Riegel shows excellent ability as an internist.

From whatever standpoint we view the book, it shows to advantage,

but more especially in diagnosis and treatment. Instead of following an article with a list of its literature, a practice which obtains with our American authors, Riegel's list precedes the article.

The chapter on "Disturbances of the Stomach Functions in Other Diseases" should be studied by every internist.

In reference to the Oppler-Boas bacillus, he says: "This bacillus can be recognized readily in unstained specimens," to which we quite agree. As most writings on the Oppler-Boas bacillus speak only of stained specimens, an impression is given that staining is necessary in order to view them.

In speaking of the algesimeter, an instrument devised by Boas to determine the intensity of pain in some given spot, he remarks: "By means of this apparatus Boas discovered, for instance, that round ulcer of the stomach may be painful if a pressure of from $\frac{1}{2}$ to 1 kilo (1 to 2 pounds) is exercised, whereas in chronic gastritis 4 to 5 kilos (9 to 11 pounds) can be borne without pain."

Books as carefully and skillfully written as this help to place medical literature in its proper dignified position.

STORCK.

Text-Book of Diseases of the Eye—For Students and Practitioners of Medicine, by DRs. HANSELL & SWEET, with chapters by DRs. CHRISTIAN R. HOLMES, CASEY A. WOOD and WENDELL REBER. P. Blakiston's Son & Co., 1903.

The authors have been eminently successful in compiling within small compass the most up-to-date eye information useful to the student and practitioner. The chapter on ocular symptoms in general diseases would seem to us to be of especial value to the general practitioner, while that on the method of locating foreign bodies in the eye and orbit with the Röntgen Ray is valuable to any one interested in ophthalmology.

BRUNS AND ROBIN.

Lessons On The Eye—For the use of Undergraduate Students, by FRANK L. HENDERSON, M. D. F. Blakiston's Son & Co., Philadelphia, 1903.

For the purposes intended by the author we are strongly inclined to believe that his lessons on the eye will prove useful. Not very many years ago the eye instruction vouchsafed to the student at most colleges was of the scantiest sort. Presumably acting upon the ancient adage that a little learning was a dangerous thing ophthalmology never rose to the dignity of a subject upon which the student was required to furnish any evidence of knowledge and as a consequence the student left it out altogether of the category of essentials to a degree. We believe the contents of this little work, while not encroaching too much upon a student's valuable time, would, if thoroughly digested, do an incalculable amount of good to him in after life, in appreciating the relations of eye diseases to general conditions and contribute not a little to a knowledge of his limitations as a general practitioner.

BRUNS AND ROBIN.

The Refraction and Motility of the Eye—For Students and Practitioners, by WILLIAM NORWOOD SUTER, M. D. Lea Brothers & Co., New York and Philadelphia, 1903.

To the best of our knowledge this is the only small work, devoted to the refraction of the eye, including a chapter on the disorders of eye

motility. At this date no eye examination is to be considered thorough without looking into the questions of its muscle balance. The author, fully appreciating this fact has given us not only a good, safe and easily understood exposition of refraction but an equally valuable treatise on that essential branch of eye knowledge—its motility. We are pleased to give it favorable mention.

BRUNS AND ROBIN.

Progressive Medicine, Vol. IV, December, 1903. A quarterly digest of advances, discoveries and improvements in the Medical and Surgical sciences. Edited by HOBART AMORY HARE, M. D. Lea Brothers & Co., Publishers, Philadelphia and New York.

This completing volume of *Progressive Medicine* for the year 1903 contains some of the most important contributions of the series. Dr. J. C. Hemmeter's article on Diseases of the Digestive tract is really a monograph, embodying the new physiology of digestion as it has been established by the discoveries made by Pawlow, Futterer and others, whose investigations have so completely revolutionized our knowledge of the digestive function. The bacteriology of Dentistry and the Diarrheas of Infants, the subject of Intestinal Parasites and the recent advances in the diagnosis and treatment of Diseases of the Liver and Gall-bladder, are fully considered. Diseases of the Pancreas have of late been exciting much attention, and Dr. Hemmeter has devoted considerable space to their discussion.

In the article on Surgery, by Dr. J. C. Bloodgood, of Johns Hopkins, there will be found a particularly interesting discussion of the entire field of Anesthesia, both local and general, considered not only from the standpoint of the surgeon-specialist, but also from that of the general practitioner. Dr. Bloodgood's chapter includes, in addition to the subjects above referred to, an exhaustive review of all advances in the treatment of fractures and dislocations, amputations and orthopedics. It is illustrated by a splendid series of engravings in the text, and by six full-page plates in black and colors. The subject of the surgical infections in their various aspects is thoroughly canvassed. A very valuable part of Dr. Bloodgood's contribution is that devoted to Tumors, benign and malignant; all the recent advances in their surgical treatment being presented, and the X-ray therapy of tumors is discussed at length. Dr. Belfield's contribution on Genito-Urinary Diseases covers the entire field in a most practical manner. Of special interest to the general practitioner will be found that part which deals with Tuberculosis and other infections of the genito-urinary tract. The article on the Prostate, especially on the treatment of Hypertrophy of that organ, is of the highest interest.

In dealing with Diseases of the Kidney, Dr. John Rose Bradford, of University College, London, presents an interesting discussion of the blood changes in chronic renal disease, and particular attention may be called to his able consideration of the surgical treatment of chronic Bright's disease. An excellent résumé of the advances in our knowledge of albuminuria and indicanuria is included in the article.

Since the startling announcement made by Koch in regard to the difference between human and bovine tuberculosis, scientists the world over have been engaged in an earnest endeavor to ascertain the actual facts. This subject constitutes one of the most interesting of the topics discussed by Dr. Harrington, of Harvard, in the section on Hygiene. The convey-

ance of typhoid and other infectious diseases is another topic upon which Dr. Harrington presents the most recent views.

The concluding section of the issue is taken up with Practical Therapeutic Referendum, by Dr. Landis. It is a thorough, up-to-date index of the progress in therapeutics, treating not only of the drugs recently introduced to the profession, but also dealing fully with the physiological action and clinical uses of older remedies. Thus, the continued use of acetozone in enteric is noted; the various antitoxins receive due attention; the coal-tar products are referred to; vioform the new neutral powder, and isarol, the new substitute for ichthyol, are described, and on the other hand it takes two pages to describe the newer preparations of as old a standby as quinin. Dr. Landis greatly increases the practical value of his excellent chapter by introducing a number of prescriptions, showing the best vehicles for the administration of the less known drugs.

In dealing with the contents of Progressive Medicine, it is impossible to mention more than a few of the subjects of special interest; each contributor, however, will be found to cover most thoroughly the entire field which is assigned to him. The different sections are not mere compilations, but are complete discussions of the various topics under consideration. Because of their standing as consultants and teachers the contributors to Progressive Medicine are peculiarly cognizant of the points possessing interest for the medical profession. It is this knowledge and its practical method which has resulted in the wonderful success of the work.

The publishers announce that, with the new year, the annual subscription price of Progressive Medicine will be reduced from \$10 to \$6, and that for convenience in carriage it will divest itself of the heavy cloth binding. The volumes will each contain 300 pages, abundantly illustrated and the work will continue to be issued under the same editorial management and with the same brilliant corps of contributors which have made it the indispensable assistant to the active, busy practitioner. The series of these volumes forms annually a practical treatise covering the entire domain of medicine and surgery.

DUPAQUIER.

Diseases of the Ear. A Text Book for Practitioners and Students of Medicine. By EDWARD BRADFORD DENCH, PH. B., M. D. D. Appleton & Co., Publishers, 1903.

The third edition thoroughly revised and enlarged of the former work by this author. It needs no introduction to those who have made any study of this branch of medicine, as it has come to be recognized as a classical text book on diseases of the ear, and should be in the possession of every practitioner of general medicine or otology. For the student it is complete in its treatment of the anatomy and physiology of the organ of hearing as well as of the treatment and diagnosis of aural diseases. Special attention is given to the surgery of the ear, and of the brain in connection with intracranial complications of which the author has made an exhausted study.

DEROALDES AND KING.

Diseases of the Nose and Throat, by CHARLES HUNTOON KNIGHT, A. M., M. D. P. Blakiston's Son & Co., Philadelphia, Publishers.

A book prepared chiefly for the convenience of Medical Students, the basis of which is a course of lectures delivered by the author at the Medical College of Cornell University.

The limited space given the work is its only unfavorable feature, but

the student fitting himself for the practice of general medicine will find in it all of the essentials of diagnosis and treatment and a valuable fund of correct precepts deducted from the long and extensive experience of a most successful practitioner in diseases of the nose and throat.

DEROALDES AND KING.

Publications Received.

Hinds & Noble, New York, 1903.

How to Attract and Hold an Audience, by J. Berg Eisenwein.

Lea Bros. & Co., Philadelphia and New York, 1903.

Progressive Medicine, Vol. IV, Ed., by Hobart Amory Hare, M. D. assisted by H. R. M. Landis, M. D.

Organic and Physiologic Chemistry, by Alexius McClannan, M. D.

J. B. Lippincott Company, Philadelphia, London, 1903.

Blood Pressure in Surgery, by Geo. W. Crile, M. D.

Willam Wood & Co., New York, 1903.

A reference Handbook of the Medical Sciences, Vol. VIII, Ed., by Albert H. Buck, M. D.

F. A. Davis Co., Philadelphia, 1903.

The Practical Care of the Baby, by Theron-Wendell-Kilner, M. D.

Miscellaneous.

Fourth Annual Report of the Work of the Cancer Laboratory of the New York State Board of Health for the Year 1902-03.

Seventh Annual Report of the Hospital for the Relief of Crippled and Deformed Children of Baltimore City.

Transactions of the National Association of U. S. Pension Examining Surgeons, Vol. I, 1903.

Reprints.

The Surgical Treatment of Traumatic Hemorrhage of the Spleen, by N. Senn, M. D., of Chicago.

The Restoration of the Perineum, by Henry O. Marcy, M. D., of Boston.

The Buried Animal Suture: Its Value in Aseptic Surgery, by Henry O. Marcy.

First Dressing on the Battlefield, by (Col.) N. Senn, M. D.

The Fermentation Theory of Infection and Immunity, by J. W. McCoughlin, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR DECEMBER, 1903.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	5	6	11
Intermittent Fever (Malarial Cachexia)	2	1	3
Small Pox.....			
Measles.....			
Scarlet Fever.....			
Whooping Cough.....	1		1
Diphtheria and Croup.....	2		2
Influenza.....	29	3	32
Cholera Nostras.....			
Pyemia and Septicemia.....	6		6
Tuberculosis.....	60	39	99
Cancer.....	13	6	19
Rheumatism and Gout.....		2	2
Diabetes.....	1	1	2
Alcoholism.....	6	1	7
Encephalitis and Meningitis.....	2	2	4
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	23	6	29
Paralysis.....	5	6	11
Convulsions of Infants.....	4	7	11
Other Diseases of Infancy.....	13	9	22
Tetanus.....	4	7	11
Other Nervous Diseases.....	2		2
Heart Diseases.....	56	31	87
Bronchitis.....	10	6	16
Pneumonia and Broncho Pneumonia.....	69	26	95
Other Respiratory Diseases.....	12	1	13
Ulcer of Stomach.....	1	1	2
Other Diseases of the Stomach.....	3	2	5
Diarrhea, Dysentery and Enteritis.....	22	12	34
Hernia, Intestinal Obstruction.....	2	1	3
Cirrhosis of Liver.....	5	3	8
Other Diseases of the Liver.....	2	2	4
Simple Peritonitis.....	6	2	8
Appendicitis.....	4		4
Bright's Disease.....	36	19	55
Other Genito-Urinary Diseases.....	2	3	5
Puerperal Diseases.....	7	6	13
Senile Debility.....	33	14	47
Suicide.....	1		1
Injuries.....	19	25	44
All Other Causes.....	19	15	34
TOTAL.....	487	265	752

Still-born Children—White, 21; colored, 14; total, 35.

Population of City (estimated)—White, 227,000; colored, 83,000; total, 310,000.

Death Rate per 1000 per annum for Month—White, 25.74; colored, 38.31; total, 29.09.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.19
Mean temperature.....	52.
Total precipitation.....	3.71 inches.
Prevailing direction of wind, north.	

The President and Gentlemen of the Medical Association of Porto Rico—It is with sincere pleasure that I to-night stand with you, my colleagues, to discuss one of the most important medical matters that touches our beloved island. It is with pride that I feel identified, however humbly, with her and feel the personal bond that links me to her.

Your invitation to address this society is only another of the many proofs that I have of the scientific interest in this question which animates more and more of our profession here as the days go by.

Dr. Walter King, Marine Hospital Service, my associate and friend, and myself have drawn together the conclusions to follow in this paper.

Russian and some in the Czech language are found there. The translations in Czech and Russian were made by a young Russian Hospital Corps' private. Notes from these works were freely taken.

It seems of prime importance in the work of hygienic reform tending toward a betterment of the present distressing epidemic of uncinariasis, to spread far and wide an abundant, chosen and reliable literature upon the subject. In so doing, considering the fact that the majority of the practicing physicians of the island have been educated in schools abroad, it is advisable that the writings of European physicians be freely referred to and cited, not alone to convince all of the very extreme importance with which this matter is regarded, but to lend confidence to some

whose ideals are to be found in their Alma Mater. As a matter of fact the foreign literature is very rich in uncinariasis observations, and, while many fine works may be found in English, many more can be found in other languages.

Considering, therefore, the subject from its standpoint of economic importance, let us pass over a few quotations from the following writers:

Sonsino, an Italian writer, says from Egypt:

"Anchylostomata, filaria and bilharzia are veritable scourges to mankind, scourges of a kind that do not destroy at once, like cholera or plague, but decimate slowly and deteriorate whole populations, like malaria."

Major Giles, of the English Army in India, reports that the parasite is responsible for a formidable mortality and a great amount of chronic sickness, and in his article, "Notes on anchylostomiasis, being for the most part, a resumé of a report on the diseases known in Assam as *Kala-Azar* and *Beri-Beri*," states as follows:

"A very short experience with 'blacklisted' Assam tea gardens would, I am sure, convince that anchylostomiasis without the aid of any other pathological condition is quite capable of acting as a plague to which Achin experiences of epidemic neuritis are mere child's play."

Leichtenstern, a most noted author in Germany upon this particular disease, and a man who has spent years in patient study and scientific discussion of the subject, has reported upon the epidemics that have visited the mines and brickfields of Germany. He acknowledges, what nearly all acknowledge, that there are many infected who do not sicken, or if they do, are but slightly sick, but he intimates, what is also undoubtedly true, that generally the health is seriously undermined. He believes that certain peoples are to a limited extent immune but that the white race suffers severely.

Sandwith of Egypt, who delivered the now famous address before the International Medical Congress in Rome in 1894, chose for his subject "Observations on four hundred cases of Anchylostomiasis." He stated that he cured or greatly relieved 89.5% of his cases, that 2.5% were not relieved, and that 8% died, that their average stay in hospital was from 14 to 76 days, that the

average number of days was 30, and that most left because they were clamoring to go to work, they felt so much better.

He defines the disease as follows:

"An insidious wasting disease, characterized by progressive anemia, without apparent cause, and by digestive and nervous deterioration, occurring in earth and brick laborers of warm climates, caused by the presence in the duodenum and jejunum of a blood sucking rhabditic nematode; occasionally proving fatal in prolonged cases but capable of cure upon removal of all the parasites and capable of prevention by scrupulous cleanliness."

From an article entitled "*Consideraciones sobre dos casos de anemia, por anchylostomata duodenale*" por el Dr. J. B. Agnoli, *La Cronica Medica*, 1893, Lima, Vol. V, p. 6, Jan. 31, we extracted the following: "An exceedingly common disease in the valley of the Amazon, anemia, the most frequent and deadly of the endemics."

From the *Boletin de la Asociacion Medica de Puerto Rico*, Ano 1, Sept. de 1903, No. 9 p. p. 143: "*Uncinariasis o Ankilostomiasis con la historia clinica de un caso*," por Luis Garcia de Quevedo.

"Dice Stiles que generalmente el 'rostro palido,' 'las palpitaciones del corazon,' 'las hinchazones' y 'las supresiones de Menstruacion' observados por el Dr. Harris, que ha estudiado esta enfermedad en Georgia, Alabama y Florida nos cuenta con mucha enfasis que casi todos los casos de malaria que el examino alli resultaron casos de uncinariasis y hace notar la relacion que exista entre este parasito y el organismo de la malaria. El Dr. Agramonte dice en la *Revista Medica Cubana* que el examino 16 casos de anemia que se habian diagnosticado anteriormente como casos de anemia perniciosa y todos resultaron verdaderos casos de uncinariasis."

Surgeon Major Oswald Baker, Civil Surgeon, Moulmein, India, writing on "The anchylostoma duodenale, its wide prevalence and connection with jail Debility" (*Indian Medical Gazette*, Calcutta, Dec., 1888), states, that in jail many prisoners whose anemic condition was said to be due to a variety of vague causes, incident to prison life, such as, depression from confinement, loss of appetite, wet weather, malaria and scurvy are all due to loss of blood from the anchylostoma duodenale. The reason for not finding ankylostomata in some autopsies in cases of fatal debility is that the "worm quits the patient as rats quit an empty house," when anemia becomes profound.

Professor Nothnagel, the noted Viennese, in an article headed, "A case of Ankylostomiasis," *Allgemeine Wiener Medicinische Zeitung*, Vienna, March 29, 1898, calls attention to a man who presented at clinic nothing more than extreme pallor. He states that he obtained access to the case because the man had been refused admission to the country by the Inspector of Immigration by reason of the law in Austria that makes this disease quarantinable. He remarks that the inspector was right in sending this man out of the country as "he was dangerous to the people." He states that the great St. Gothard tunnel epidemic was at first believed to have been due to the hard life of the miners until Peroncito and others convinced all Europe of the error and pointed out its infectious nature.

Hayman Thornhill, M. B., Senior Medical Officer, N. W. and Sabaragammia Province, Ceylon, in an article entitled, "Ankylostoma duodenale. Is it wide spread in India, Assam and Ceylon and is it a harmless or a harmful parasite" (*Ind. Medical Gazette*, Sept. 1895, p. 339)? strongly advises governmental interference to stop the inroads of the disease which he declares is one far more serious than cholera (and this is a country where cholera has terrified the whole world by its great mortality and constant presence), not on account of the number of deaths it causes directly but on account of the vast number affected, the chronic nature of the disease and the aggregate mortality direct, and especially indirect, for which it is responsible. There are many provinces of Ceylon, he says, where medical officers do not recognize it but diagnose it anemia, debility, dropsy, malarial cachexia and diarrhea. He had 783 cases chiefly from tea estates. He says that malaria decimates the lowlands and that those that escape by fleeing to the mountains are caught by anchylostomiasis.

Dobson, in India, states that 75.5% of the inhabitants of 35 districts in that country are infected.

A Brazilian physician states that in Rio Janeiro the physicians had to fight hard against theories of insufficient or improper diet as a cause of the disease. He examined patients in a lepers' hospital and found 40% were infected and states that pretty nearly all Brazil is scourged.

Professors Haldane and Goycott, in England, report a severe epidemic in a Cornish mine.

In Egypt it is found at nearly every postmortem and is the chief cause of rejections of recruits for the army.

France abounds in reports of epidemics and has spent much money to eradicate it and with great success.

Belgium is not making a fight against it. Recently the Emperor of Germany authorized the appointment of a commission to study the disease in certain mines of Germany and report on means of controlling its spread.

Tenholt and Pfeiffer report a great epidemic in that part of Austro-Hungary where the Czech language is spoken.

Surgeon Major Borah, M. B., Civil Surgeon at Darrang (presumably a Hindu physician), states his view as follows:

1. "Uncinaria duodenale is not a harmless parasite but is the cause of the disease known as 'Anemia of Coolies.'

2. "That this is the same anemia of coolies, Beri-Beri, etc., as that described by Kynsey, of Ceylon.

3. "This particular kind of anemia differs markedly in its character from the anemia in general, that results from other diseases. It is generally observed in the garden populations (mostly imported coolies) and its fatal terminations are generally, dysentery, diarrhea and dropsy."

4. "It plays an important role in raising the sick and death rate among the tea garden populations."

His experience results from being in charge of debarcation depots and inspector of tea gardens.

Dr. C. E. Cawdle, Assam Company, Medical Officer, says:

"My experience shows that in nearly all cases of anemia treated, when expulsion of the anchylostomata takes place and that when the cases are taken in time the results are promising. In factories where native doctors use thymol in an intelligent manner, cases of chronic fever are cured not infrequently by its use which have resisted other treatment and in many of these cases anchylostomata are found, although at that time anemia has not been a well marked symptom."

Last, but certainly not least, the story of uncinariasis must yet receive a notable addition.

The experiments in Porto Rico in 1899, in which 19 cases out of 20 sick, taken at random in a field hospital in Ponce were found to be suffering from uncinariasis, called forth much comment on

the disease is general. The noted American zoologist, Charles Wardell Stiles, a pupil of Leuckart of Germany, believing that the anemia of some of the districts in the Southern States was due to this worm, made a tour of inspection, and on his return published what is considered by us to be the most notable, exact and scientific article on the subject extant. He says:

“Malaria is admittedly one of the most important diseases when viewed from an economic standpoint. In general, uncinariasis is, in the South, fully as important as malaria, and in some respects it is of even greater importance.

“Take a given farming area in the sand districts with an infection of uncinariasis, and assume that 100 people are not doing the work of 80 or 90 average hands. Thus there is a distinct loss of 10 to 20 per cent. in the wages and a corresponding loss in the crop returns. In some places I should estimate the loss at an even higher percentage, say an average of 25 per cent., while in several families which I have examined I should say that uncinariasis is reducing the laboring capacity hence the productiveness, of the family, to as low as 30 to 40 per cent., thus entailing a loss of 60 to 70 per cent.

“Nor are the losses in wages and in the laboring capacity, and the decrease of productiveness of the family, hence of the farm, and finally of the country and state, the only economic considerations involved. Cases are not unknown where families have sold, moved or destroyed their homes, or were about to do so, because of the belief that it might be due to the locality in which they lived.

“Again, it is a most common experience to be told by the father of a family that he spends for medicine all he earns, in hope of ridding his children of this malady. Add to this the physicians' bills, the loss by death and funeral expenses, etc., and it is seen that this infection is keeping more than one family in absolute poverty.

“Nor should we forget that uncinariasis has its important bearing upon the mental as well as on the physical and financial development of the poorer white people. As already stated, children infected with this malady are often underdeveloped mentally, frequently they have a reputation in the schools, in the neighborhood, and in their own family, of being ‘stupid,’ or ‘dull’ or back-

ward' in their studies, etc. It has already been mentioned that children suffering with this disease are frequently kept home from school because of their tendency to become edematous when they sit still for any length of time. When we now recall that these conditions coincide especially with the educational period, it should not seem strange that uncinariasis has a marked influence upon the general intellectual condition of the districts in which it occurs.

“Considering the subject in the light of all I saw on the trip, and taking what I believe to be a conservative view of the subject, I find it exceedingly difficult to escape the conclusion that in uncinariasis, caused by *Uncinaria Americana*, we have a pathologic basis as one of the most important factors in the inferior mental, physical and financial condition of the poorer classes of the white population of the rural sand and piney wood districts which I visited. This sounds like an extreme statement, but it is based upon extreme facts.

“By this position I do not intend to assert that uncinariasis is the only factor which comes into consideration. The warm climate and monotonous diet, and probably also the excessive use of tobacco in some cases, are not without influence.

“Still, with uncinariasis as it exists to-day, these people are suffering from a handicap in life which practically removes them from a fair chance in competition. If the uncinariasis is removed they will be placed in a more favorable condition both subjectively and objectively. With the present prevalence of uncinariasis their lack of ambition is perfectly natural; remove the disease and they can develop ambition.

“On the other hand, if we were to select the strongest people in the country and place them in the conditions under which these patients are now living it would be only a generation or two before even a race of athletes would be in the same condition as the persons under discussion.

“The conditions described are familiar to persons who have visited the rural sand districts. But they have existed for so many years that many of us to-day look upon them as natural, hence they do not attract the consideration to which they are entitled.”

Hardly one more word may be said of the effects of uncinariasis on this island, so truly can this apply here.

It would be only repetition to recount our own views which appear in *American Medicine*, Sept. 5, 1903.

Any one of these articles, or several, or all, should be published in Spanish. It is well worth the trouble and expense. Many eminent physicians in the U. S., whose time is occupied in other branches of our profession, are totally or almost totally ignorant of the literature on this subject.

What greater hygienic work, what more noble, disinterested and patriotic service could be given to Porto Rican people than that, and which we believe, will proceed from her own sons, her own physicians. I believe I am not exaggerating when I say that many proofs of their capacity to undertake this campaign have been presented.

What has happened in the Tricoche Hospital at Ponce should take place every where in this island. There, Drs. Luis Aguerrevere and Raimon Torres, together with an enthusiastic corps of nurses, under the excellent direction of Dr. Juan Regis, the Superintendent, have so energetically attacked anemia as it presented itself in their wards, that to-day rare indeed is it to see a death there from that disease, which in gloomy times before claimed its victims by hundreds and which loaded the hospital with chronic sick, a burden to its physicians, to the state and to its suffering patients. No need is there to begin in that institution. There no anemia patient goes untreated, nor is there dimming of enthusiasm for results that engender hope of life and strength. To the Tricoche Hospital we would like to render a tribute of sincere regard.

So it could be in every municipality on the island.

It is needful to impress on all the following facts:

1. Anemia in Porto Rico is generally curable.
2. It is also preventable.
3. Chronic cases of long standing are more difficult to treat but 75% of these are enabled to return to their accustomed work after a month or so of treatment.
4. Some failures must result when the blood making organs are exhausted and organic complications are far advanced.
5. Every ten days, not oftener, a full dose of thymol should be given. Generally it is needful to repeat the dosage four or five times. In the interval iron should be given.

6. In very weak and advanced cases it is better to give a half dose, previously fortifying the patient with heart tonics.

7. It is not necessary always to have a microscopical examination in cases of the laboring poor as the proportion of cases of anemia due to uncinariæ is so tremendously high that mistakes will rarely arise and even if they do no harm is done.

8. Thymol properly given is a harmless drug but directions for administering it must be carefully followed.

The treatment of uncinariasis is simple and rapid in proportion to the length of time the patient has harbored the parasite. As before noted, we must expect an easy cure only when the disease is young.

Our mode of attack must generally follow this sequence :

1. Expulsion of the parasite.
2. Regeneration of the blood.
3. Treatment of complications and sequelæ.

1. *Expulsion of the parasite*:—Of all drugs up to this time used, thymol stands preeminently forward as the specific; of great value also is male fern.

A few years ago considered of about equal value with *felix mas*, thymol has come to be adopted by the majority as the best anthelmintic for expelling the parasite.

The mode of administration of the drug is one of the important factors in success. It is not enough to "give thymol," merely, for directions should be scrupulously followed in order to achieve the best results. The dosage here is necessarily large as we are to kill a parasite and a certain amount of the drug must be thrown into the intestinal canal at one time. If the doses are to be divided they should be used in rather rapid succession or the parasites will not receive the full vigor of the blow.

Lutz' method is as follows:

After a light meal at 11 a. m., give calomel, 0.5 grams, and powdered senna, 2. grams, divided into 4 doses, one hour apart. The last dose may be omitted if sufficient action is secured by the other three, and if the full amount does not accomplish its end, more senna should be exhibited; after this nutritious and easily digested liquid food is the proper diet; this ensures by evening copious dejections and also a night's sleep. In the early morning 2 or 3 doses of thymol of 2. grams each are given at 2 hour inter-

vals, after a little coffee or broth. One or two hours after, the usual meal may be indulged in. In the majority of cases there is another copious dejection, if not another bland purge is given. Weak patients must be previously fed up well to prepare them for the ordeal. The thymol is best given in cachets or capsules each containing from 1-2 to 1 gram. It should never be given in liquid form nor in powder. Six grams is the limit advised. His result with four gram doses in one man was, 12 ascarides, 460 uncinariæ and 9 tricocephali.

Scheube gives 4 to 8 grams of thymol. He makes a great point of the patient's lying in bed, flat upon the back while the treatment is being carried out, a needful precaution, for very disagreeable symptoms with vertigo, syncope and a weak slow pulse occurred once in the experience of one of the writers simply because the patient disobeyed directions.

We have together given thymol more than a thousand times and only once was there the slightest reason to become worried over the patient's condition. It is being given many more times now in the Tricoche Hospital and without danger. Generally speaking, its danger had been much over estimated and, with care, it is the exception to note bad symptoms. Children should receive from 1-4 to 1-2 the full dose.

The great point is, according to our idea, to give a dose of Epsom salts two hours after the last dose to eliminate the thymol from the intestinal canal.

No alcoholic beverage nor ether, chloroform, glycerin, turpentine or oils, all of which are solvents of the drug, should be allowed while thymol is in the intestinal canal. Almost all fatalities, and they are rare, can be attributed to neglect of these precautions.

There is doubt in the writer's mind that while most cases can perfectly well stand the prescribed dosage from the first many must be dealt with in all gentleness. Patients in the extreme grade of anemia and with secondary involvement of vital organs must receive preparatory treatment. It is our custom to give to very weak subjects stomachics, iron and strychnin, or digitalis, the latter especially in cardiac weakness and dilatation, and, in addition, to make an effort to reduce the amount of mischief done by the parasite by lessened doses of thymol, 1 to 2 grams given by the prescribed method. This last measure eliminates a part of that

factor which would otherwise have rendered such preparatory treatment little more than fruitless.

This previous care is generally entirely unnecessary. In the majority of cases we modify Lutz' treatment by using Epsom salts as a purge, it being cheaper, more rapid and usually as efficacious, 30 to 60 grams are needed the day before and the same dose 2 hours after the last dose of thymol. Treatment should not be given oftener than once a week or once in 10 days.

One course of thymol hardly ever suffices, the average being about three, according to many authors.

Sandwith states that among 184 patients he proved the absence of the worm by giving two or more doses after the last appearance of the eggs. The average number of times he had to administer the drug was 2.6:

Cured by the first dose.....	42
“ “ “ second dose	58
“ “ “ third dose	42
“ “ “ fourth dose	25
“ “ “ fifth dose	9
“ “ “ sixth dose	4
“ “ “ seventh dose	2
“ “ “ eighth dose	2

Under ordinary circumstances, in acute cases, the result of this treatment here outlined is truly remarkable and makes a profound impression on people who have tried as these usually have, so many other medicines without relief. Even the heart murmurs become less and less distinct, and in many instances this organ, to all appearances permanently disabled, will return to the normal. In about a week the conjunctival sac begins to lose its extreme pallor, the pulse gets slower and the appetite ravenous. The heart signs are the last to go, as in most cases they are apt to continue for some time or in some cases permanently. Generally after two weeks a patient can return to his work if he can be depended upon to lie down on feeling fatigued. The rule is to get a cure in from three to eight weeks. In less favorable cases the disease drags on for two or three months. Cases of very recent infection, as seen from the writings of Leichtenstern, are extremely obstinate because the parasite is small and concealed in mucus.

Sandwith only had one case return to him for treatment of his four hundred.

Male fern is sometimes given in the place of thymol. It should be exhibited in capsules, each containing 0.5 grams, 6 grams is given in all, and the directions for administering are the same as noted for thymol save that castor oil is the purgative. It is not as efficient as thymol nor is it always pure.

It is fruitless to give other drugs as anthelmintics.

In the *Medical News* of March 2, 1901, J. E. Pool, of Paramaibo, Dutch Guiana, uses thymotal as being more efficient and safer than thymol. Dose 2 grams; 1-2 gram for children. Given every day for 4 days.

2. *Regenerative treatment.*—1. All hygienic measures, together with practical hydrotherapy, avoiding fatigue in exercise.

2. As rich a diet as possible in albumins. Rare scraped beef is the best and some digestible fat.

2. *Medicine.* Iron in some form is needful. Lutz' method is the best when a cheap tonic is used. He uses 5 to 10 drops of liquor ferri chloride neutralized with bicarbonate of soda and well diluted. Blands' pills are the best for a tonic and this is what we use when possible. Two five grain pills are given three times daily and are gradually increased to three, three times a day.

Arsenic has failed in our hands.

Digitalis is the best heart tonic, but spartein, a favorite heart tonic in Porto Rico, may be used.

Strychnin is a valuable aid in the general neurasthenia liable to be present.

We now turn to the all-important question; what can be done to prevent the spread of the disease and to stamp it out in its worst haunts?

Before considering in detail this phase of the question it is valuable to confront ourselves with the possibilities in general of a successful attack on the tropical anemia of this island.

If one will but read the advertisements in every paper in Porto Rico he will be struck with the many sure-cure pills, powders and confections offered to the credulous public as a relief from their ever present "anemia." There is something pitiful in a man buying iron to enrich his blood to fatten his parasites. There is no objection whatever to these pills if they are only harmless iron

compounds and if they are preceded by thymol, save that time honored and natural dislike for patent medicines in the profession. All here have noted in a certain percentage of cases that iron alone will produce a temporary betterment in a severe anemia, but it is not permanent.

We contend that at this present moment more money is lost personally and in government works due to this little nematode than would ever be necessary to expend in the cure and prevention of uncinariasis here. Moreover the island has the opportunity of antedating the Southern States of the Union by perhaps several years in a governmental hygienic reform.

It has the opportunity of presenting to the United States evidence of its intelligent activity in dealing with epidemics and especially with this one, long before the rest of the Union will take like action. Its activity in dealing with smallpox will be more than excelled by its reduction in death rate from anemia. Neither smallpox, nor yellow fever nor cholera have ever produced such mortality, we doubt, as 8,967 deaths a year as in 1899-1900.

A few simple facts will make plain the rationale of the following means of control of uncinariasis:

The infected laborer who soils the ground places thereon from 500,000 to 1,000,000 eggs, which after 4 or 5 weeks have become infectious larvæ. Rains, traffic over the spot, etc., spread these larvæ about the area. By the time they are "ripe" to infect, the signs of fecal matter have disappeared and the safety from man's natural disinclination to soil his body with excrement is removed.

The unsuspecting laborer, in a small plantation, and especially in the environment of his home, treads upon these larvæ or soils his hands working therein, as in planting coffee. The hands are not washed, the daily food is taken and with it many microscopic larvæ. Thus is he infected. Recently Loos and Bently in a series of wonderfully clear experiments have proven the entrance, strange as it may seem, of the larvæ through the skin of the feet and legs. Small pustules soon form and sometimes ulcers, wrongly considered to be due to syphilis. This is known as *pani-ghao*, or "ground itch." These larvæ are swept by the circulation of the blood to the portal veins where they selectively penetrate the intestine and develop in its lumen. No more fanciful theory of infection can be imagined, yet the best scientists in the world to-day acknowledge it as a frequent, and possibly the most frequent, of

the methods of infection. Granted that this is one of the means of infection, it is, however, certain that the individual may and does become infected by eating with mudstained hands. Leichtenstern infected a man by feeding him larvæ.

Water is not in our opinion a very frequent means of infection. On the contrary, it seems to us to be rare; but it occurs. On the other hand, if no one were to soil the ground the consensus of opinion is that the anemia of Porto Rico would disappear forever. The larvæ die if confined a couple of months in a latrine where, in addition, earth is heaped over them. In other words they need air to develop.

Therefore, the one chief and particular sin of the Porto Rican countryman and his American neighbor in the Southern States is soiling of the earth in which he must work.

It is a sin which is the foundation for the misery of his own children and his children's children. We cannot look at this truth with idle curiosity. It is the very secret of the prophylaxis of this disease and surely it is not asking much that men not soil the ground with their excrement. But precisely here is placed our battleground. It is not that we fear that men who can understand the rationale of these facts will not subscribe to them but it is that we are going to find indifference in the laboring classes where to be indifferent is to be lost. Once the soil is thoroughly infected, to enumerate the modes of infection by this parasite is to think of all the manifold habits of life possessed by every people on earth who live by laboring in it. Eating with earth soiled hands, eating of unwashed vegetables and fruits liable to be mud spattered drinking of very muddy water (perhaps), eating and drinking from earth soiled receptacles, [geography], working or walking in damp, muddy infected spots, use of filthy clothes, living in houses plastered with infected mud, cleaning up of muddy feet where the burden is merely carried to the finger nails, the crawling of naked children in mud and dirt, etc.

This is essentially a disease of the poor. Occupation is the great predisposing element in infection. Mines, where terrible epidemics have cost many foreign countries dear, we have not. Brick making we have to a small extent and here the small area soon becomes loaded with larvæ. The pursuit of agriculture, by which Porto Rico lives, is where infection generally occurs. Especially to be

mentioned are small estates and some larger estates with many hands.

The coffee lands of Brazil must be terribly scourged. One Brazilian writer declares that it should be an axiom that coffee plantations and those of rice and other cereals are especially adapted to the growth of *uncinariæ*. The reason for this in part is that here shade and humidity of soil conduce to the development of the larvæ. We have observed this fact in Porto Rico and find the coffee plantation laborer is the almost invariable host of the nematode. For the same reason banana patches are especially dangerous. Sugar plantations are by no means exempt. When we consider that there are 264 people to the square mile, that "more than $\frac{3}{4}$ of the dwellings in Porto Rico have no provision of any kind for a latrine," that $\frac{1}{2}$ the people drink unfiltered river water, that humidity, a correct temperature, shade and slimy mud make a perfect culture medium for the deposited eggs, it seems of grave importance to encourage the building of latrines.

There are no authors who deal with the prophylaxis of the disease who do not enunciate the cardinal principle that feces must not be deposited on the field of labor exposed to the air where, later, man must work. Nevertheless, although most of them agree in essential points, there are varying details suggested as we pass from one to the other.

The authors who are best known and who seem to be the most practical, are Surgeon Major Giles, Surgeon Major Hayman Thornhill and Dr. Charles Wardell Stiles.

Let us again emphasize the fact that from the time that the egg falls on the ground it must have air to bring it to the infectious larval stage. It must also have a moist soil and its development is favored by shade. Now, by confining feces to a latrine we may in several ways deprive the embryo of air.

In India there have been more or less successful attempts to at least exclude the disease from the tea garden districts and we cite Giles,* who was on special duty in Assam, for his practical mode of prevention.

He states that Assam has a small indiginous population (1891),

* Tea garden sanitation; being a few remarks on the constructions of coolie lines, with especial reference to the prevention of the disease known as anemia of coolies, beri-beri and anchylostomiasis. By George M. Giles, M. B. F. R. C. S., San. Sci. Cert., Univ. London, Surgeon Q. M. S., on special duty, Assam, Shillong, 1891. Printed at the Assam Secretariat Press.

and so planters have to import coolies from India at great expense; hence they are willing to spend money to keep them well. We find, therefore, that on most of these large estates there is a medical officer who is likewise sanitary inspector. The coolies are examined at the embarkation and debarkation depots and thus the gardens receive, or should receive, healthy coolies. But from the fact that the campaign against uncinariasis was duly in its inception, many infected went to work on these estates and spread their infection.

He remarks that he found as many as 50 anchylostoma larvæ in a bit of earth the size of a pea.

His remarks on latrines are very encouraging. He says that the "theoretical objector" has a stock argument that the latrines would not be used, but he himself initiated the latrine among these Hindus and found that it was eminently successful as the coolies seemed to prefer it. He claims that the whole secret lies in making the latrine convenient to the people. It must be made easier to get to than to go elsewhere and it must be kept clean.

He states that only two systems are available.

A.A. Standing latrine worked on the dry earth system.

B.A. Shifting trench latrine.

The first costs more as a conservative staff is needed. The larger the number of people to be provided for the more economical it is. The roof should be waterproof. It should project two feet in all directions beyond the enclosed space, should be 10 feet wide and as many feet long as there are seats to be provided, plus 3 or 4 feet on the end to be reserved as a washing platform.

Only the middle six feet are walled at the gabled ends, leaving two doors at the sides. Side walls are not more than four feet high, leaving one foot below the roof eaves for ventilation.

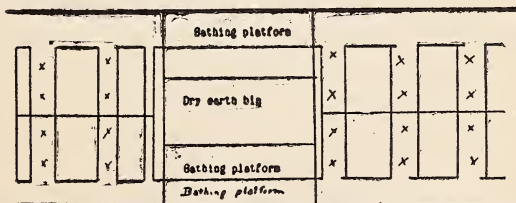


FIG. 1.—GROUND PLAN OF A TWELVE SEATED STANDING LATRINE.

There are places for squatting, not sitting, which consist of three courses of brick in mud. In a space of two feet by one foot

are placed between each set of bricks a couple of well tarred receptacles, the hinder part receiving the solid and the forward part the liquid excreta. The bathing platform is covered with tarred cement sloping to the outer wall with a drain. Male and female sheds should be separate and matting should be swung between each two seats for motives of privacy.

It is used as follows:

The sweeper throws an inch of dry earth in the recess of each seat and places on it the two receptacles in each of which a little earth is likewise placed. As they are filled he changes them and empties the contents into a tarred iron receptacle of a size convenient for hand carriage. After the morning work the sweepers carry this receptacle to a piece of ground set aside for the purpose and bury the contents in trenches two feet deep.

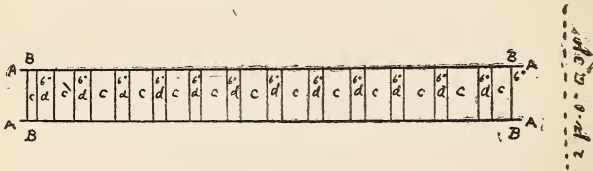


FIG. 2.—MOVABLE TRENCHES.

The second system, that of movable trenches, is as follows:

All that is needed is a number of small screens of bamboo matting. A trench eighteen feet by one foot is dug close to the lines with a length proportionate to the number who are to use it. Screens are propped up around it and earth daily hoed into it until it is half full when it should be covered in and a new trench dug, parallel to it and a yard or so from it, moving the latrines in the circumferences of the lines so as to prevent using an old stamping ground. This provides labor for a few old men who are willing to earn a little in this way. These methods will efficiently stamp out the disease and the manured ground where the parasites are killed previously by excluding them from air can be used for crops of vegetables.

Means of disinfection can be selected from three facts in the natural history of the worms.

1. A long exposure to the sun's rays during dry weather kills the minute worm.

2. Any exposure, however short, to a temperature of 140° F. and over also kills them.

3. They can live only very close to the surface of the soil, so burying them beneath a few inches of earth kills them.

1. At the beginning of the dry season, clean away all jungle and high weeds affording shades.

2. At the end of the dry season fire the grass, as even a transient passage of a grass fire will raise the temperature of the surface soil above 140° and it is only the surface layer that we desire to raise to this degree of heat.

3. Repeat ploughing of land every fortnight. He also cautions us not to wait until an infected individual falls sick from *uncinariæ* but advises treatment as soon as infection is proven.

Hayman Thornhill, M. B., Senior Medical Officer, N. W. and Sabaragammia Province, Ceylon, in an article before referred to, continues as follows:

Prevention.—Proposals for a means of prevention must take into account the prejudices of the people. He suggests the following plan for latrine:

A.A.A.A. Old road rails; B.B.B.B. Pit 20 to 25 feet deep with sloping sides and top edges built with brick or stone for 18"; C.C.C. Iron foot plates bolted to rails two feet wide by one foot for ends; D. Latrine spaces 6" wide, one for each 8 or 10 persons on each line; E. Jungle posts to carry thatched or cadjan roof. Screens should be placed between each foot plate. He says that it makes no difference whether there is a free life stage of the worm or not, nor whether larvæ are infectious from the soil or the water when we desire to prevent infection, although he does not believe that water is a vehicle of infection. He says that the only way to prevent infection is to use latrines.

In a resumé of methods he condemns Giles' second method, stating that these trenches cannot be placed near enough each person to ensure proper use, that it would lead to concentration which would cause a scattering of larvæ by infected feet of dogs, ducks and other household animals to the habitations of the coolies. There is also danger of the trench not being properly sprinkled with dry earth, danger of soiling of the edges of the trench and a decided danger from surface water overflow in rainy seasons.

Bucket latrines are too costly.

He advocates the pit latrine as a choice between evils, if they are sufficient in number and convenient to encourage use if kept clean.

He considers that if $\frac{1}{2}$ or $\frac{1}{4}$ of the inhabitants of an estate infected use them, there would be not only a great diminution of this disease, but of cholera and typhoid (we might add here dysentery). He makes a wise reference to means of securing this sort of sanitation.

People should be led and induced, not compelled, but statutory laws should be passed that in willful pollution, infected and responsible parties might be punished.

All recruits for the army and police, all government coolies and native employees, all children in schools, all estate laborers and factory hands should be examined for anemia and such should be detained and their feces examined microscopically for ova. An infected village should be registered and treatment should be instituted then for infected.

Dispensaries in charge of instructed men should be opened and villagers urged to have themselves treated and should be refused government employment until they comply.

Lutz advises a wide distribution of the literature on the subject. He calls attention to the danger from those who are infected and do not know it, as every one so infected is a menace to others. He advises, as all do, public latrines and states that their absence is the cause of the spread of the disease. He desires a sterilization of feces with acids like carbolic.

He cautions against soiling the water sources but believes the stone filters an absolute protection from this mode of infection.

He advises cleansing of hands before eating and prohibition of surface soiling.

Sandwith would reject all persons from government employment who are infected and would treat the disease in all who cared to take such treatment.

Stiles says:*

“In the prevention of diseases caused by animal parasites, we may, of course, attempt to attack the infectious agent in any stage of its life history. In connection with uncinariasis, three periods in particular come into consideration, namely, (1) The adult worm in the intestine; (2) the egg in the feces, and (3) the infecting (‘encysted’) stage of the larva.

“ (1) *Adult worm in the intestine; treatment.*—The destruction of the adult worm in the intestine not only relieves the patient

* “Prevention of Hookworm disease.”

of an important and (when present in large numbers), serious or even dangerous parasite, but it is also an important factor in preventing the spread of the disease to other people. Accordingly, treatment should be instituted even if the eggs found in the feces are so few in number as to indicate only a light infection.

“Not infrequently the opinion is expressed that the infection with parasites found in a given patient is so light that treatment is hardly necessary. Such a view, however, is often very shortsighted, for it is not infrequently light infections occurring at unfavorable seasons and under favorable times. No *Uncinaria* infection in man is too light to be worthy of treatment for each adult female may lay eggs; hence the destruction of these females means the decrease of scores of free infectious larvæ.

“Not all cases of the malady can be recognized without the microscope; hence, many people will unconsciously spread the disease-producing agent. Furthermore many cases which might be recognized by symptoms will not come under medical treatment, so that they, too, will spread the infectious material. It is clear, therefore, that for satisfactory results in prevention, we must adopt some method in addition to the treatment.

“(2) *Eggs in the feces; control and destruction.*—It is in the feces that we find the potentially infectious material in the most concentrated form. After the eggs develop into embryos the latter may leave the fecal matter and be distributed in the sand or in the water. Accordingly, it is much easier to control or destroy a given amount of infectious matter while it is concentrated in the feces than it is later when it is spread over a larger area. Here, in fact, we have the key to the prevention of uncinariasis. Proper disposal of the fecal discharges will make the spread of uncinariasis impossible. As such proper disposal I will suggest: Properly built privies when sewerage is lacking; use of such outhouses after construction; cleaning the same at regular intervals, and burial, burning, disinfection or drying of the feces.

“(3) *The infecting ('encysted') stage of the larva; disinfection of premises.*—A chemical disinfection of premises to kill the free stages of eggs, embryos, and larvæ of the parasite would hardly be practicable, but heat, dryness and cold all result in killing these organisms.

“About twenty-four to forty-eight hours of freezing temperature kills the free infection, hence after any cold weather, most, if not all of the free infection (except such as exists in places not affected by the dryness), is killed, so that exposed portions of premises may be assumed to be practically disinfected.

“Spraying with burning oil as practiced by the Massachusetts Gypsy Moth Commission, will effectually disinfect any area. If a spray nozzle or ‘cyclone burner’ is not at hand, the ground around the house could be strewn with straw or brush and set afire (due

precaution being taken not to burn the house), thus thoroughly disinfecting the premises.”—(See Stiles, 1902 d.)

Drinking Water.—To tell the average farm hand or miner that he should always “boil or filter” the water before drinking it is, academically, a step toward preventing infection with uncinariasis. Practically, however, it is a step toward throwing away whatever influence we may happen to have with him. Theoretically, we should teach this simple hygienic precaution to all families, both in the city and in the country. Practically, we are in many cases weakening our position by insisting too generally on this point.

While, therefore, we may warn people to boil or filter their drinking water in order to prevent the introduction of the infecting agent of uncinariasis or of other diseases, provided we see any chance of their following the advice (in regard to which we ourselves, except in times of epidemics, are very inconsistent), we will, I believe, usually weaken our influence with the poorer classes in mentioning a precaution which the average farm hand naturally looks on as absurd. It is much more important to urge him to locate his privy some distance from the well. That is a proposition he can appreciate; the necessity for boiling or filtering drinking water is usually beyond his mental horizon.

Clean Hands.—An important point in connection with preventing the ingesting of the infectious agent of uncinariasis is that the hands and finger nails should be kept clean. I am inclined, however, to take an ultra-practical view of cleanliness versus dirt in connection with country houses, and to first see that the inevitable dirt shall be clean. This can be accomplished if we can succeed in having properly constructed latrines, built at proper distance from the wells and houses, if the children be taught to use them, and if the parents be taught the necessity for cleaning them.

These, in my opinion, are the first steps to be taken, and far outweigh all such considerations as boiling and filtering drinking water or keeping the hands clean.

Wearing Shoes.—Wearing shoes during wet weather and washing the feet frequently will prevent the cutaneous infection and will protect to a great extent against ground itch. It can hardly be expected, however, that the poorer children in country districts will adopt this precaution to any extent.

Our recommendation for the present cannot be very extensive,

because it is not known how possible it may be to carry into effect many excellent means of prevention. Suffice it to say that we believe it would be of great value in bringing well before the general public and the physicians of the island the importance of the disease:

1. To thoroughly circulate the literature on the subject.

2. To take some part of the island, as Utuado or Adjuntas, where "starvation, misery, etc.," is reported, establish a tent hospital, place two well-instructed young Porto Rican doctors who are enthusiastic, energetic and diplomatic, in charge, let them have nurses, medicines, cots and food for the running of the station, and let them go into the "byways and highways and seek them out," cure as many out-patients as possible and take the miserable poor into the tents.

After six months publish results, see if the death rate from these centres of uncinariasis does not materially decline, and, above all, let us see how much "starvation, misery, and so forth" is the fault of uncinaria Americana and how much is due to real lack of food.

Not that we underrate the suffering of the wretched poor but that we desire to see eliminated a powerfully fatal element in an underfed body.

Such an experimental station, if conducted by Porto Rican physicians, modern young men, men who will be painstaking and who will understand that on their results lies a heavy responsibility, that they are there to fight down a shockingly high anemia mortality, such a station, we repeat, may cast its helpful light down the future years of their island and have far-reaching influences which we do not yet dare to hope for.

3. To encourage the other means of prevention heretofore noted, especially in estates of sugar, tobacco and coffee, particular attention is invited to plans for latrines. One man must be kept in charge and a scavenger must be provided.

It is not deemed wise, nor well, to seek legislative restriction on soil pollution yet. Let example and pamphlet teaching do it best. Let us convince "the sober second thought" of these people and enlist them in their own interest to combat the disease and the rest will follow naturally.

Definition.—Sandwith, of Egypt, who chose for the title of

his now famous address to the International Medical Congress held in Rome in 1904, gives the following definition for Uncinariasis:

“An insidious wasting disease, characterized by progressive anemia, without apparent cause and by digestive and nervous deterioration, occurring in earth and brick laborers of warm climates, caused by the presence in the duodenum and jejunum of a blood sucking rhabditic nematode, occasionally proving fatal in prolonged cases, but capable of cure upon removal of all the parasites and capable of prevention by scrupulous cleanliness.”

(TO BE CONTINUED.)

Croupous Pneumonia; Its Prevalence and Treatment.*

By ADRIAN A. LANDRY, A. M., M. D., Painscourtville, La.

Although the treatment of Croupous Pneumonia has been for generations the chosen battlefield of therapeutics and the subject is being constantly discussed in medical societies, nevertheless, we will all agree that in face of the increasing prevalence and the high mortality of the disease, notwithstanding our better conception of its pathology, the last word upon it has not yet been spoken. The time is now most opportune for a thorough consideration of the subject, and I think it is our duty to continually study and discuss the subject until the high mortality is somewhat reduced.

I am not exactly prepared to affirm that the death rate of pneumonia is greater now than it was formerly, yet it is certain that the deaths from pneumonia in proportion to the population and deaths from all causes has very considerably increased during the past century, as has also the prevalence of the disease, as shown by Dr. E. F. Wells¹, of Chicago.

The prevalence and mortality of all other infectious diseases, diphtheria, scarlet fever, small pox, consumption, etc., has markedly diminished of late years. Their ravages are insignificant as compared to pneumonia. That pneumonia should have taken the place of the “great white plague” as the “captain of the men of death” is a blot upon our boast of modern prophylactic medicine. Several reasons may be assigned as the cause of this widespread prevalence of the disease, chief among which undoubtedly is the lack of prophy-

* Read at the annual (January) meeting of the Assumption Par. Med. Society.

lactic measures. It is well known and recognized that pneumonia is an infectious disease, caused by a specific micro-organism, the *pneumococcus lanceolatus*. The majority of clinicians all over the world are even agreed as to its being contagious². We can all recall instances where the disease attacked successively several members of the same family, and several adjacent houses in a neighborhood. It is important then first of all if we wish to diminish the prevalence of the disease, to teach the general public that there is always an element of contagion-danger in a pneumonia case, and that certain protective and prophylactic measures are advisable to avoid danger. Practically the same measures should be taken to disinfect and sterilize the secretions and particularly the expectoration as in a case of consumption. The sputum reeks with pneumococci and is particularly dangerous when left exposed to dry and infect the air. Persons not in the best of health, or in any way predisposed to lung diseases should not be allowed under any circumstances in the same apartment as a pneumonia case. These measures may seem unnecessary, but history constantly repeats itself; twenty-five years ago prophylactic measures against tuberculosis were laughed at.

Our own negligence in instructing the public and the indifference of the health authorities in instituting prophylactic measures is also responsible for this increased prevalence. When smallpox, diphtheria, scarlet fever, etc., whose mortality per thousand of population is insignificant as compared to pneumonia, breaks out in a community the health authorities immediately take steps to stamp out the disease in its incipiency, but when pneumonia appears upon the scene, we take it as a matter of course, a dispensation of Providence, do practically nothing in the way of prophylaxis when much could be done to prevent its spread. The time will come when pneumonia will be classed as a communicable disease by health authorities and treated as such, Philadelphia having already taken steps to that end.

In view of the fact that pneumococci are found in the nasal, pharyngeal and oral cavities of about 20 per cent. of healthy individuals, it is necessary that these cavities especially when inflamed or irritated should be cleansed often and thoroughly, and individual vitality should be kept at the highest pitch of efficiency. There is no doubt that the general prevalence of influenza, by

undermining the system and diminishing vital resistance is another cause of its increased prevalence. The increasing consumption of alcohol in the country, amounting to over seventeen gallons per capita a year, may, for the same reason as influenza, be another factor to be considered in its widespread prevalence³. To prevent its spread, various other prophylactic measures, principally thorough ventilation of public places, such as theatres, churches, street cars, etc., should not be forgotten. This, however, does not concern us as much as residents of large cities.

Treatment—Our conception of the pathology of croupous pneumonia is totally different from that of our forefathers. They looked upon it as a distinctly local disease, an acute inflammation of the lungs due to exposure to cold, accompanied by elevation of temperature, rapid pulse, pain, etc., and adapted their treatment accordingly. Antiphlogistic measures, bleeding, tartar emetic, aconite, veratrum viride, calomel blisters, poultices, etc., were employed to attack the disease. It is true these measures reduced the fever, quieted the pulse, relieved pain, etc., and at times it was even claimed, checked the progress of the disease or aborted it; the ultimate result, however, was not always all that could be desired, sometimes disastrous in direct proportion to the vigorousness of the treatment.

We recognize it as an acute infectious disease of microbial origin, manifesting itself as a general toxemia, with a local disturbance in the lungs. This local disturbance in the lungs passes into the three recognizable stages of congestion, hepatization and resolution or disintegration. We recognize that our patient's life is endangered in three ways:

1. By general toxemia, the toxins of pneumococcus developing so rapidly as to overpower the vitality of the patient at the outset of the disease.

2. By circulatory failure, due to myocardial degeneration. This myocardial degeneration in turn is occasioned by the toxins acting directly upon the heart muscles, and in the general circulation, and by the obstruction in the lungs, throwing more work upon the heart.

3. By respiratory failure, or deficient oxygenation due to the rapid involvement of large areas of lung tissue. Edema of the lungs is also an occasional source of danger. This edema is again

the result of a weak heart, and toxemia, the tissues no longer possessing the vitality necessary to develop the changes characteristic of inflammation.

As yet no specific has been found to combat these three dangers. Our treatment therefore must be merely symptomatic, that is eliminative, getting rid of the toxins, as much as possible before they can do harm or overpower the system, and supportive, helping the heart, in its fight for life. It is evident therefore that any agents which tend to depress or in any way weaken the heart are as a very general rule contraindicated and should certainly not be used as routine measures. Aconite and veratrum viride are cardiac depressants, affecting not only the muscular fullness of the heart, hastening degenerative changes, but also the nervous apparatus, stimulating the inhibitory nerve and paralyzing the muscle. It is true these agents diminish the tension of the pulse, lessen its rate, reduce body temperature and provoke perspiration relieving temporarily most of the symptoms, but they do this at the expense of the heart strength, which later in the course of the disease is of such importance for a favorable outcome. In robust sthenic individuals with a full bounding pulse, high arterial tension, dyspnea, marked pain, they may be used and to advantage, but then with circumspection and at the very beginning of the disease, during the first 12 to 24 hours in the stage of congestion. Later in the disease they are distinctly harmful. It is rare that we see our cases sufficiently early to use them to the best advantages. Tartar emetic is open to the same objections. Altogether these are not safe drugs to use in pneumonia when preservation of the cardiac strength is all important. It is now generally admitted that they do not abort, shorten or lessen the severity of the disease, but merely relieve symptoms. As a matter of fact, when the initial chill occurs, the system is already infected, and the only agent capable of aborting it would be one which would immediately neutralize the toxins. Such an agent has not yet been discovered, and all efforts at jugulating the disease is merely a waste of energy.

Bloodletting is open to the same objections as the foregoing drugs, in as much as it is a depressing measure, it also affords marked and almost instantaneous relief to those sthenic individuals when the pulse is full and bounding, the arterial tension

high, the dyspnea of an aggravated form and the pain severe. Tyson⁴ in these cases recommends cut cups to the affected side in preference to venesection at the arm, especially when pain and dyspnea demand urgent relief, and when the pneumonia is associated with pleurisy. However, he cautions us as to its use, insisting that by no means all cases demand bloodletting.

There is another period of the disease when bloodletting is of distinct advantage, even more so than in the stage of engorgement, when it is a life saving measure not replaceable by any other remedial agent, in the stage of consolidation when there is engorgement of the right heart, threatening it with paralysis from over-distension. The symptoms of this condition are intense dyspnea the beating rate being 50 or more, the respiration is shallow and labored, the pulse small soft and fast, the jugulars are distended, and the lips, face and general cutaneous surface dusky and cyanosed, the second pulmonary sound is strongly accentuated, the lungs are full of moist rales of edema. No situation is more exacting of good judgment and decision than this one. Our patient is in imminent peril, and our failure to take advantage of this measure at the proper moment may be disastrous. Tyson⁵ recommends hypodermoclysis in conjunction with bloodletting. This measure was first used in pneumonia by Dr. T. P. Henry, of Philadelphia. Under its use, the symptoms rapidly improve, and the toxins are diluted and eliminated in the urine and sweat, which secretions are stimulated by the saline solution infused. Hypodermoclysis has been of such value in surgery, in the treatment of shock and infections, that its use under these circumstances is most rational and worthy of serious consideration. It is particularly efficacious when an acute nephritis or an acute exacerbation of a chronic nephritis complicates the pneumonia and uremia is threatened.

Elimination—Although we do not know for certain that the toxins escape through other channels than the kidneys, the various emunctories at the onset of the malady must be thoroughly opened to prevent the accumulation of the toxins in the system⁶. The thorough and early evacuation of the bowels and emptying of the liver undoubtedly contribute to the comfort and well being of our patient and carries away from the alimentary canal all the toxins present therein. A good dose of calomel and soda bicarbonate followed by a saline is generally efficient. The

saline may be repeated every second or third day during the whole course of the disease. The revulsive action of these drugs in the intestines tends to relieve the engorgement of the lungs and the over-distention of the right heart.

To keep the skin active, nothing is more efficient and less harmful than the hot mustard foot-bath. This can be given with very little disturbance to the patient, the tub being put into the bed. These baths can be repeated frequently as they are perfectly harmless, and the sweating they produce is beneficial. Furthermore they stimulate the cutaneous circulation, thereby increasing the efficiency of the heart.

The chief eliminating route is, as we have already stated, the kidneys. Their functional activity is necessary for the preservation of our patient's life, for, if impaired, poisons rapidly accumulate in the system, quickly overwhelming the heart and nervous system, whereas when free diuresis is present, elimination goes on so rapidly that a profound toxemia can not develop even if the infection is moderately severe. Pure cool water, or an alkaline mineral water if convenient, is the best diuretic and should be supplied *ad libitum*, preferably in moderate quantities at frequent intervals, to flush out the kidneys. Hypodermoclysis, as already stated, is also a valuable and harmless stimulant to the kidneys. In the urine we must look not only for albumin, but for the normal amount of urea.

While attempting to get rid of toxins by these measures, it is important not to introduce any more into the system. In view of the fact that pneumococci are present in the mouth in considerable numbers it should be thoroughly cleansed with some mildly antiseptic solution at frequent intervals. Furthermore it is important to put and keep our patient in the best possible condition to resist and overcome the toxemia that is present. For this purpose a suitable diet should be chosen. It is needless to state that it should be strictly fluid and nutritious. Milk, when well borne, should be the chief article of diet, especially when the disease is as its height, 3 or 4 pints daily being sufficient. Broths, gruels, fruit juices, such as oranges, lemons, etc., may be allowed. Nourishment, however, should not be given in too large quantities at a time as digestion is always slow and imperfect.

Anything but easily digested foods in small quantities may

undergo abnormal fermentation in the gastro-intestinal tract and produce poisons which will add to the general toxemia of the disease. Pure fresh air should be supplied in abundance by means of free ventilation. It is sometimes difficult to impress the necessity of this upon the relatives and friends who still look upon pneumonia as due to cold and exposure, and who think it absolutely essential to the welfare of the patient that every particle of fresh air be excluded from the room. When we consider that the blood aerating surface in the lungs is diminished by one third, sometimes by one-half, it is easy to understand how imperative it is to supply the purest air attainable. The temperature of the room should not be over 70° F., and not stifling hot, as is often the case.

Stimulants—In severe cases the use of stimulants to support and aid the heart is of the greatest importance. However, we should not forget the fact proved by experimentation that infectious diseases are accompanied by reduced arterial tension and dilatation and lack of tone of the peripheral arterioles; in other words, by a condition of vascular relaxation and vaso-motor paralysis. In considering circulatory failure in pneumonia then we should not look exclusively to the heart, but to the vaso-motor centers as well. These very often are at fault and not the heart. The tonicity of the arterioles and capillaries offer a resistance which is essential to the proper action of the heart. Remove this resistance and we have, a rapid weak pulse due in no way to a weak and disabled heart, but to lack of arterial and capillary tone, requiring not heart stimulants, but vaso-motor stimulants. Conversely, increase this resistance above normal, and we have a laboring heart, requiring not stimulation, but vaso-motor relaxation. It seems proper therefore to first examine the tension of the blood-vessels before prescribing for the heart itself.

Of stimulants the one upon which we place the greatest reliance in emergencies is strychnin. The dose should be sufficient and often repeated, and in grave cases the best effect is obtainable by its hypodermatic administration. We must not forget, however, that in large doses it is an irritant stimulant, merely a whip to the nervous system goading it on to extraordinary effort. It should not be used continuously in these doses for it will produce nervous irritation, and irregular temperature, rapid pulse and even delirium. It is essentially an irritant stimulant, to be reserved

for emergencies, used freely then and discontinued as soon as the critical period is passed. Hare⁷ compares strychnin to the whip of the teamster. The skillful driver does not use it continuously on his horses, all day long and after they are stalled, but uses it at the critical moment, and then heroically. There is no danger in large doses as long as the patient is closely watched, and the dose diminished with the appearance of toxic symptoms. Cacein is a valuable substitute for strychnin, and in my opinion, a stimulant not used as extensively as it should be. It is a respiratory and circulatory stimulant and possesses the additional advantage of being an active stimulant to the kidneys, thereby increasing the elimination of effete material. It has the disadvantage of producing wakefulness, but this can be overcome by a few doses of the bromides.

Atropin is also useful especially when vascular relaxation is marked. After crisis it is useful for the rapid running pulse, profuse cold sweating and gasping respiration, and when there is a tendency to edema of the lungs. This drug also is not as often used as it should be.

Digitalis has been highly extolled by some, but its action is slow, uncertain and very often disappointing. Its frequent failure may be attributed to high temperature, physiologists teaching us that it is not efficient in the presence of fever. Besides it frequently disturbs the stomach and digestion, a serious consideration in some cases. At the beginning of the disease in the stage of congestion it is positively contraindicated for there is already too much blood being pumped into the lungs. In the more advanced stages of the disease, when the pulse is small, frequent and feeble, due to overdilatation of the right ventricle from backward pressure of the blood which is unable to circulate through the consolidated lung, it is not only of no value, but harmful. We are only driving the blood against an impossible barrier. Blood-letting, as already stated is the remedy par excellence to relieve the strain.

The use of massive doses of digitalis as originally recommended by Petreoco of Bucharest, has not found many advocates, although in 1894 he reported 1192 cases treated by this method with a mortality of 2.66 per cent. But the author himself states that the treatment is not applicable to very grave cases and that his observations were made in a military hospital on young and

robust men. Any method of treatment can make as good a "showing" if cases are chosen. Besides, among healthy picked men in the German Army, Osler gives the death rate as 3.46 per cent. in 40,000 cases. Dr. Rochester⁹ protests against this treatment as "irrational and unscientific and based on a wrong conception of the nature of the disease," and I think most authorities agree with him.

Alcohol is regarded by most clinicians as one of the best stimulants, although the method of administration, that is the dosage, is not unanimously agreed upon. It is particularly useful in weak and debilitated old persons and in those accustomed to its daily use or rather abuse, chronic alcoholics, when the pulse is compressible and dicrotic and the second pulmonary sound loses its force. Dr. N. S. Davis, Jr.¹⁰ is opposed to its use in large doses, claiming that in such doses it produces anesthetic and paralyzing effects, lessening the force of the heart and causing it to dilate more easily, makes respiration shallow and increases the danger of cyanosis by lessening the oxygen carrying capacity of the blood. It disturbs metabolism, he continues, and hastens muscular degeneration, dilates the peripheral arterioles, favoring stagnation with damming back of the blood upon the right heart, and lessens diuresis. When forced to use it, he prefers small doses frequently repeated, as the effect of these small doses is very transitory. However, he prefers other diffusible stimulants such as the aromatic spirits of ammonia. These objections are mostly theoretical and I think you will all agree with me, that experience has taught us that it is beneficial and in some cases absolutely indispensable.

We can all recall desperate cases in which the free use of alcohol tided the patient over the critical period. Incidentally alcohol reduces temperature by increasing heat loss by evaporation and radiation, and by lessening heart production. It also lessens tissue waste by supplying fuel. Cabot, of Boston¹¹, however, maintains that in therapeutic doses it is inert in relation to temperature, pulse respiration, etc., and has no effect upon blood pressure. The most important role it plays in infections however is, he states, its effect on the power of the blood to produce immune bodies. As a result of recent experimental investigation, Hare (12) also concludes that alcohol seems to have the power of combating in-

fectious diseases by increasing the bacteria destroying power of the blood. There seems therefore to be a dual indication for its use in infectious diseases, as a stimulant and as a specific directed against the toxemia. This latter specific action is still unsettled.

Of other diffusible stimulants, the preparations of ammonia are mostly used. The carbonate was in great favor at one time, but seems to have been superseded by the aromatic spirits. These should be administered at frequent intervals, as their effects are evanescent. Musk and camphor have been used to advantage to tide the patient over the profound depression that often accompanies or follows crisis. Nitroglycerin is very rarely indicated. It is not a stimulant, but a vaso-dilator and paralyzer of arterioles and capillaries, a condition we are constantly seeking to prevent in pneumonia. However is it useful in overcoming peripheral resistance due to sclerosed and tense arteries occasionally found in elderly subjects suffering from chronic nephritis as a complication.

Fever.—The temperature unless abnormally high can be disregarded, as the febrile period is generally of a comparatively short duration, and not apparently much responsible for the disturbance of nutrition and exhaustion, from the fact that in a very large proportion of the gravest cases the temperature is not high. Besides if we are to place much faith in the experiments of the Klemperers, the fever in some measure, aids the body in acquiring immunity by the formation of antitoxin. These experimenters produce immunity in animals by the injection of antitoxin, the product of the micrococcus lanceolatus. In these experiments they discovered that when the antitoxin was heated to a temperature higher than that of the animal, say 106° F. for some time previous to injection, immunity was produced much more quickly than when not heated antitoxin was used; moreover, the systemic reaction when heated antitoxin was used was slight, whereas when the not heated product was used, the systemic reaction was far greater. Heat they concluded is an aid in the production of immunity. We have often noted how fatal febrile pneumonias are. If the fever needs treatment, sponging with cold or tepid water, or the application of an ice bag to the chest are the safest antipyretic measures. Coal tar preparations should not be used for they are depressing to the nervous system and to the heart, be-

sides they increase the work of the emunctories already overworked in the elimination of the toxins, and arrest the development of leucocytosis, so necessary to the destruction of the germs and the formation of antitoxin. I admit there is a great deal of popular prejudice against the use of water or ice externally in pneumonia, but it is our duty to insist upon our convictions upon every occasion.

The application of an ice bag to the chest, besides reducing fever, is efficient in relieving pain, a serous consideration at times, acts as a cardiac sedative, aids in preventing that most serious complication of pneumonia, pericarditis, and has a beneficial effect upon the local processes in the lung.

As to the use of opium for the cough, and pain, etc., there exists much difference of opinion. Generally it is considered a dangerous drug in pneumonia. The safety of our patient very often depends upon keeping the respiratory nerve centers wide awake. Opium used too freely benumbs these centers, making respiration shallower, increasing cyanosis. Furthermore the cough should not be so interfered with, as to prevent the bronchial tubes from expelling any secretion which may form in them. Again opium may do harm in interfering with elimination, particularly by the kidneys when they are in any way unsound. However, we must use it occasionally, notwithstanding these objections, when pain is severe, cough hacking and annoying, or when it is essential that the patient have rest. The need of rest should be recognized whenever persistent delirium, causing nervous and cardiac exhaustion, is present. Again in cases without delirium who lie awake for hours developing a rapid pulse rather from loss of sleep than from disease, a dose of morphin hypodermatically affords great relief. Heroin hydrochlorid, supposed to be free from all the bad effects of morphin, and codein in doses of 1-12 and 1-16 grain is also very often useful and preferable to the last named preparations. Dover's powder is probably more used for the cough and pain than any of these. For delirium and sleeplessness, the bromides of ammonium or potassium are useful. In delirium, however, always look to the temperature. It is often due to high temperatures, requiring antipyretic measures more so than somnifacients. Again it may be an indication for the use of stimulants. In this instance it is generally of a low, muttering type of grave import.

The value of oxygen gas is problematical. It can be used when the respiration is difficult and cyanosis is marked, when respiratory failure is threatened, and serves to afford relief and add to the comfort of the patient. It produces no material effect upon the course and duration of the disease.

Of local applications, poultices have been abandoned not only as useless, but annoying and sometimes even dangerous. Blisters are of no particular value and annoying from the pain they produce. Mustard plasters and turpentine stupes I use to relieve pain. The ice-bag, for reasons already stated, is the best local application.

I wish to add a word of protest against the use of nauseous expectorant syrupy mixtures formerly so much in vogue. They are not only valueless, and not indicated, but positively harmful in that they disturb digestion. Do not stupify the patient with opium and there will be no need of them. If resolution is delayed more good will be accomplished by improving the patient's general health by nutritious food and tonics than by the use of such resolvents.

Specifics.—Drugs innumerable have been recommended and used as specifics, but their very number and variety is proof positive of the inefficiency of any agent as such. Pilocarpin, quinin, the salicylates, chloroform, digitalis, cinnamic acid, etc., have had their advocates. The carbonate of creosote is the only drug now considered of any value. It is administered in 10 to 15 minim doses every 2 to 4 hours. As a result of its trial in 74 cases with a mortality of 14.9 per cent, Scott and Montgomery¹³ conclude that it causes no irritability of the stomach and no disturbance of the kidney function, and that the toxemia was mild save in the fatal cases. The degree of toxemia however, they admit, is a difficult point to estimate as the temperature and the amount of lung involved indicates very little about it. In contrast with their mortality is that of Van Zandt,¹⁴ who reports 1130 cases with the mortality of 4.95 per cent. His cases were secured from different observers by correspondence, etc., and Scott and Montgomery call attention to the unreliability of statistics obtained by compiling a small number of cases from numerous observers. Creosote carbonate, they intimate, is a promising drug in the treatment of pneumonia, and should be given a thorough trial.

Of all specifics, the antipneumococcic serum was the most promising, for that one was directed at the essential factor in the mortality of the disease, the toxemia. The Klemperers succeeded in rendering animals immune to the effects of the pneumococcus, but the use of the serum in man has not been followed by uniform results, and those who have given it a fair trial admit that it has fallen considerably below their expectations. It has yielded results in no way comparable to those obtained from the use of antitoxin in diphtheria. Dr. James Wilson¹⁵, of Philadelphia reports a series of 18 cases with a mortality of 22.2 per cent, and another series of 18 cases with a mortality of 35.3 per cent. Sears¹⁶, of Boston, reports 12 cases with a mortality of 25 per cent. This latter observer states that the duration of the disease was not influenced by its use. Notwithstanding these results analogy leads us to hope that a useful and efficient antipneumococcic serum may be produced, and I have no doubt that this will soon be accomplished.

Gay¹⁷ has recently used diphtheria antitoxin in two grave cases with most gratifying results. It has been used by others with equally good results. Talamon¹⁸ has treated 50 cases with 7 deaths, a mortality of 14 per cent. Hewlett maintains that its beneficial effects is due to the action of the antitoxin in stimulating phagocytosis and improving nutrition.

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**Normal Salt Solution and Butter as Stimulant and Nourishment,
Subcutaneously and Cutaneously Administered,
in "Swamp," Enteric and Scarlet Fevers.***

By S. L. WILLIAMS, M. D., Oakridge, La.

The subject of normal salt solution in relation to treating the septic and toxic states, became a part of the discussion at one of our Parish medical meetings two years ago, after the reading of my second essay, wherein some remarks were made on the antagonistic action of the white blood cells against the bacteria.

Robert Koch's theory giving the cycle through which bacteria must pass to prove themselves disease producers, was mentioned. The experiments of Nuttall, Buckner and others were considered inasmuch as they explained the destructive effects of a substance in the blood serum which is present naturally and arises in disease and arrests bacteria and foreign products. Hence the ideas favoring the cutaneous and subcutaneous means of supplying the less rapid septicemias, as are found in long-endured pathogenic, or conditions thought to be of germ origin and treated without an efficient antitoxin.

My limited experience during the past three years, and particularly the last two, bears out the efficiency of salt solution and butter, subcutaneously and cutaneously administered, respectively, the exception being in habitual alcoholism, where arterio-sclerosis had developed. Two cases of alcoholism with complications which were treated died, though good was accomplished in prolonging the life of each, and proving conclusively the strength of the support.

Less than four ounces of salt solution forced under the skin of an adult patient on the sixth night of his suffering from malarial hematuria (or hemoglobinuria), strengthened him from semi-consciousness to consciousness and favored his recovery after every other means had failed. Massage and saline enemas were helpful.

Another case, a child of nine years, in collapse, after being in

* Read before the Louisiana State Medical Society, April, 1903.

bed ten weeks with enteric fever, was restored to consciousness before completing the subcutaneous injection of an ounce of salt solution. Fresh cream and lard were used during the course of the treatment. Two cases (one younger) in the same house recovered, credit being given the saline and nutrient enemata, baths and hygienic precautions.

Another case: Less than two ounces of salt solution on one occasion and one on another, with the butter treatment amounting to two pounds in 24 hours, extending over a period of 20 days, stimulated the child (aged 5 years) in post scarlatina infection to a favorable prognosis when life was at a low ebb and unconsciousness predominating, as results of anemic coma.

The experience rather impresses one with the great absorption through the lymph capillary system and the helpfulness in keeping the skin epithelium nourished, especially in diseases where the high stages of hyperemia and desquamation react upon the nervous system and handicaps the peripheral arterial circulation and corpuscular development, all of which demands a good circulation through the lymphatics from the lesser of the greater vessels and glands in order to induce the white blood cells in greater number to be liberated from the lymph sinuses, after the vaso-afferentia and before the vaso-afferentia vessels pass from within and come from without the glands into the channel from the smaller to the larger, from the periphery to the termination of the lymphatic system, in the right sub-clavian vein. Here motion is given to the white blood cells and the probable chemical albuminous cell element substance, nature's antitoxin, such as we want when giving salt solution, the better substitute after nature and less likely to contain germs and spores of other diseases.

An advantage through the subcutaneous and cutaneous methods of supplying the deprived auto-intoxicated states over the blood-letting and transfusion method, is that in the latter there is always the patient's condition to consider—they are usually too much reduced to think of opening the vein on the one arm and filling in on the other; too, there is always an intermingling of the fresh salt solution with the serum already charged with toxins in its final distribution to the surface, so much so that the peripheral vessels are forced to take up the contaminated mixture and re-circulate it.

The subcutaneous and cutaneous routes take in the fresh, pure and uncontaminated products the same, not identical as do the lacteals of the intestines; but can it not be said of salt solution and butter that each is stimulant and nourishment to the cells and cell substances arising from the lymph glands, from the lesser to the greater, the same as in the case from the lacteals, to the liver?

The epithelial structures of the body are of no little importance. Can it be said of them that salt solution or butter prevents their rapid destruction or influences their purpose, whatever it might be, in disease? Physiological functioning through Nature's efforts are our patterns and with the thought that the cutaneous surface is a little less extensive than the alimentary canal, there can be no objection to the use of such harmless support as salt solution and butter, long before the digestive tract becomes impaired.

In using the solution my plan has been to insert two ordinary hypodermic needles, preferably in the patient's legs, externally, below the hip-joint, and alternately fill and slowly force syringeful after syringeful, according to the demands, using gentle massage after each injection until results are obtained or abandoned as hopeless. With the butter there is one simple means of applying it: Only have it warm sufficient to apply with the hands and spread where the skin is thin, or all over the body where there is fever or nervous excitement.

Children soon learn its good and extra large amounts will do no harm.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. M. J. MAGRUDER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

INAUGURAL MEETING, JANUARY 9, 1904.

Address of Retiring President.

DR. E. J. GRANER, the retiring President, spoke as follows:

GENTLEMEN—The past year has been a remarkable one for the Orleans Parish Medical Society. Our Society, through its thorough organization, has brought the medical profession before the public eye of our city as it never was before. It is not necessary for me to dwell upon the fact that through our organization and its members the profession of this great country was entertained on such a grand and magnificent scale in New Orleans last May. It gives me great pleasure to be able to say to you to-night that the year 1903 has been the most successful one we have ever had during our existence. Our membership, the largest ever attained (210), and every one of them in good standing, and not one dollar owing the Society ending December 31, 1903. This, gentlemen, is the first time any retiring President could make such a statement. The scientific work, as you are all well aware, has been of a high character. More papers were read than any previous year. This itself speaks well for the good work the Scientific Essays Committee has done.

The accessions to our Library have been greater than ever before, especially in new books. We have now practically an up-to-date medical library and the fifth largest of its kind in the country. I am glad to say that the members, availing themselves of its opportunities, are increasing.

Our meetings have been exceedingly interesting, the attendance averaging about 40 throughout the year.

The Secretary, Treasurer and Librarian have performed their work well.

The Board of Directors have at all times shown their willingness and good disposition to attend the meetings and do the work necessary to carry out the plans for our successful year. I inaugurated a system of quarterly meetings of the Board to facilitate our work. It has proven a success, for at these meetings every one can become acquainted with the detail business and freely discuss every point, thereby knowing exactly our receipts and expenses and other conditions.

Our finances are on a sound basis, notwithstanding we gave \$350 for new books and journals.

Our Assistant Librarian, Mr. George Augustin, has shown at all times his willingness to work in the interest of the Society.

The domicile question has been kept before the Board the entire year. I have appointed a permanent Committee on Domicile and I assure you the important task and discussion of new quarters was not slighted. The whole Board, as a Committee working in connection with the Domicile Committee, has visited every place that was thought might be suitable for us. We found several places, but that old stumbling block, "no money," showed up in all its glory. I sincerely hope and feel that this important question will soon bear fruit, notwithstanding all the contentions that we are confronted with, and I trust that the time will not be long before we will move into our own home, no matter how plain or simple it might be, for in its simplicity it will stand as a monument to the noble and grand profession that we are all banded together in.

To the retiring officers—I want to thank them for their co-operation and kindness shown me at all times. To the members, I want to assure them that I highly appreciated the honor conferred upon me when they elected me their President, I tried to foster their good will and do justice and honor to the position, which it so dearly deserves, for it is a great honor to be a member of the Orleans Parish Medical Society, but a greater one to be its President.

Allow me to thank you again, gentlemen, and in introducing my successor, your next President, Dr. Magruder, I want to say and hope that his task may be as delightful as mine has been and that he may accomplish much more and work harder for the Society in the coming year than we have in the past.

Address of Incoming President.

DR. M. J. MAGRUDER, the incoming President, spoke as follows: Gentlemen of the Orleans Parish Medical Society:—I desire to thank you for the honor you have done me in electing me President of this Society, but when I review the growth and advancement during the twelve years since I served it as Secretary, it is not without a certain degree of trepidation that I accept the honor and with it the duties and responsibilities of the office to which you have chosen me.

During these years the membership has more than doubled and to-day we find enrolled the names of more than three-fourths of the reputable physicians of this city.

With this growth, naturally, the responsibilities have also increased and more will be required of your President, but with your co-operation—for without it your President can do nothing—I feel that I may safely promise to maintain the standard to which our organization has been brought by my predecessors, and it shall be my earnest endeavor to still further build up and extend our influence until no reputable member of the profession may feel that he can afford not to be with us.

The one thing now of paramount importance to us is a domicile and I say to you here to-night, look about you and see if this meeting room is a credit to the medical profession of New Orleans. No, it is not, and there is no reason why we should remain in such quarters. While we have not the wealth of some of our Northern neighbors, surely it can not be said that among more than two hundred physicians here, not enough money could be raised to purchase and maintain a proper domicile that would be a credit and an honor to us.

We are now stronger than ever before and action should not be longer deferred. With merely calling your attention to this matter as a routine I shall not be content, but propose to wage an active campaign in the interest of this cause and I feel confident that before the close of this year we will have a domicile that will be a credit and source of pride to us.

Though our attendance during the past year shows an increase, I regret to see the names of so many who never attend a meeting and of so many others who seldom come. Let every member here feel that he is a committee of one whose privilege and duty it is

to impress upon his friends the good that may be derived from an occasional evening spent here.

The quarterly social features I believe cultivate a more fraternal feeling and should be continued.

In appointing committees I have followed the custom of my predecessors and called to my assistance the Board of Directors, and while it was desired to recognize and reward past service, the cardinal principle kept in view was the fitness and willingness of committeemen appointed to discharge the duties assigned them.

This Society, comprising as it does the enlightened medical profession of New Orleans, has before it a bright future and I trust this year will witness a concerted action of the membership, all striving for the betterment of our organization, for a closer and more fraternal relationship between one another and a general uplifting of the medical profession of our city.

To this end I pledge my best efforts and ask your earnest support.

REV. DR. BEVERLEY WARNER, the Annual Orator for 1904, spoke as follows:

Some Problems of a Great City.

Gentlemen:—The honor of addressing your Society is very sincerely appreciated and the opportunity is one of which I am at the present time especially eager to avail myself. The city in which our lot is cast and where the bulk of our work is done, is trembling on the verge of a larger and more important forward movement along all lines than ever before in its history.

Louisiana's first offering to civilization was the products of her soil. Her second was the handling of these products as raw material through her exchanges and commercial houses. In the third act of this drama of progress our commonwealth is seen transferring the raw material into the finished product within her own limits and out of her own resources. In other words, native industrialism is beginning to supplement our commerce, and to give greater value to our agriculture.

The construction of the great water way across the Isthmus of

Panama forces New Orleans to the front rank among the ports of the world. Southwestward the course of empire takes its way.

The city is the great throbbing heart of this larger life. The city, as characterized by a recent writer, with its "crowded, surging, sorrowing, suffering populace; its great teeming multitudes, its burdens of hope and fear; its disappointments and vexations; its weariness, its sins, its loneliness and heartbreaks; its burden of humanity."

It is upon this phase of the great city life, and concerning some of the desperate problems it presents, that I venture to address you this evening.

There is no body of men who have such expert knowledge as you possess of the "seamy side," so called, of the city's life.

Special knowledge like special talent involves responsibility. It may not always be possible for those who possess such knowledge to put it to practical account themselves, but then it becomes their duty to place it at the disposal of those who are able to use it for the general good.

Two foes to progress are in full fighting force in this community as in others. Ignorance and a smug conservatism which might be given a harsher title without doing violence to the facts. There is also another element which complicates the problem of the better life of the city. It is that false idea of civic patriotism which considers loyalty in the exploitation of unpleasant truths to be treason to the commonwealth.

Now, the physician's calling lifts him above any possible suspicion of self interest in the use of the probe; and as he is bound in the course of his professional tasks and toil to become acquainted with the details of these evils which affect the moral and physical well being of the city, I urge upon him his duty as a citizen to at least, cry aloud what they know.

I beg therefore to recall to you certain conditions with which your organization might deal, or concerning which individually you might assume the office of the old Hebrew prophets to cry aloud and spare not. I speak of those serious conditions which menace the health and tend to sap the morals of a large portion of our population.

There is first the threat of crowded tenements. This may surprise laymen, but it will not surprise you. We call our city the

delightful city, a city of gardens, of wide spaces between dwellings, through which and over which sweep fresh breezes. In some parts of the city this is true enough. And in those portions there has arisen an impression that there are no slums in New Orleans. People argue that because houses are not crowded together, there is no crowding. The difference between New York and Chicago and New Orleans is that they build up unto the air, while we sprawl out upon the ground. If there be an advantage on either side, it rests with those who dwell in the upper air over those who live on the damp soil of these latitudes.

During the recent convention of the American Economic Association in this city, certain gentlemen acquainted by personal observation and experience with the slum conditions of Northern and Eastern cities assured me that some of the neighborhoods which they investigated here equalled in unsanitary terror those which existed in the larger centers of population. This is an expert opinion, which upon communicating to physicians of my acquaintance, they responded that they knew it, and in some cases, added far more sickening details than had fallen under the eyes of the visitors.

We expect men to crowd together, man being a gregarious animal. It is an old evil coincident with the building of cities. It has moreover always been recognized to be an evil. A proclamation of Charles I. "prohibited the subdivision of any building into tenements . . . and the receiving of more families than one into a single tenement."

Cromwell and Charles II. are credited with like prohibitions. The reason given was, in substance, that too great a population could not be assembled in one center without scarcity of food, and lack of proper care for the poor, the sickly, and the starving.

But if people desire to herd together in droves, rather than dwell apart in families, why should they not be allowed to have their way? As moralists we might argue how far it is permissible to a democracy to allow people to live under conditions which evilly affect only themselves; but as citizens, there is no room for argument. We protect by our laws children and even animals from the cruelty or neglect of those who have legal authority over them. We do this in the interest of the State, which, for its own weal must preserve its citizenship from becoming weakling

and inefficient. In the same interest, we declare that when men herd to the detriment of themselves and others, the whole being of society is affected, and society has the right both of protest and of regulation.

With the overcrowding of our tenements arise noisome and unsanitary modes of living. I am credibly informed by those whose eyes have beheld what they describe that in some crowded portions of this city, the lack of a proper disposition of fecal matter is a constant breeder of disease.

The surgeon and physician are forced to fight not only the wounds and ills of humanity running their normal course, but both visible and invisible enemies to health and restoration which inhere in the filthy environments of the very poor.

Moses brought to bear the mandates of religion to preserve hygienic conditions. Moses may, or may not be your prophet, but the religion of humanity claims you as her priest, and in the forefront of your law must be this sentence, "Thou shalt, O man, be clean, not only to be worthy of, but to preserve the sacred dower of human life."

The physician has handicap enough in the ignorance and perverseness of his patients. He has the right to demand that society should not set the broad seal of approval upon this ignorance and perverseness, by declining the responsibility of that age-old law of human intercourse, "we are our brother's keeper."

The coming of the trained nurse has been of great advantage in the improvement of certain conditions. But the masses who most need this superb addition to the staff of modern organized helpfulness, are unable for lack of money to avail themselves of it.

One of the problems of the great growing city, spotted with festering heaps of impotent wretchedness, is that of bringing together this trained ministry and those who need their misintra-tion.

And this without the taint of pauperization.

One tendency of our civilization, with all its material possessions, and abounding in the rude vigor of power to do, is to overdo. I am not sure but that we have overdone in the matter of charitable organizations and institutions. We have many organizations, and too little organization.

I am afraid we have taken it too much for granted that the chief task of charitable administration is cure, rather than the more difficult but surely more rational one of prevention.

We need a philanthropic serum injected in the social body to obviate the necessity of free clinics for the million, and hospitals for the cure of preventable disease.

Apropos of which, you will not accuse me of trespassing too far upon your own preserves, if I note two curious things in connection with the modern hospitals, or rather with the view taken of them by the lay public.

First, is a real and genuine fear of the hospital and its treatment on the part of many poor and suffering people. They dread to put themselves in your hands, gentlemen, beyond the walls of their own homes. There is an absurd side to this and a pathetic one. Superstition has something to do with it, ignorance, misinformation,—all crystallizing into a not uncommon sentiment that hospital patients are used to experiment upon. Time, patience, spelled with a c, experience, will gradually overcome this. Meanwhile it should be the duty and the high privilege of those who, like myself, have almost daily opportunity of watching the physician bending over the sickbed of the humblest and poorest, to bear our testimony to his most loyal services in his most holy calling, irrespective of the poverty or wealth, the race or condition, of his patient.

Not excepting my own profession, where we expect to find unselfish service, there is no work done in this world, in my judgment, with such absolute faithfulness, with such indomitable perseverance, and amidst the most difficult conditions, with such beautiful optimism, as the work of the average surgeon and physician to the bodies of men. Above most men, he must be a man of honor, for the secrets of many hearts, as well as bodies, are bare to his gaze. He must be a man of sympathetic feeling, for he deals with the human at his very worst, tortured by pain, and heavy souled at the prospect of grappling with the mystery of death.

For twenty-five years I have met him among all sorts and conditions of men, carrying on his often hopeless struggle, but always with hope in his soul. For twenty-five years it has been my fortune to find him almost invariably as I have described him, with exceptions so rare as to sink into insignificance.

The other curious attitude of the public towards the free hospital is the ungenerous use of its facilities by those who are able to pay for their treatment. This is more than mere selfishness; it is an overt wrong, both against the sick poor, who are thus deprived of their rights, and against the profession, without whose free and voluntary labor, hospitals would be impossible for the really needy, and misery suffering would be vastly increased.

But this is a digression.

The other vital problem concerning which the voice of the medical profession should be raised, is that of the employment of children of tender age in mills and factories. With the growing industrialism of the South, follows the engagement of children for the meagre wage that could not be offered to men and women, at an age when such use of their bodies becomes a menace to manhood and womanhood.

It is not with the employer of such labor that the blame wholly lies. Parents coin tainted silver from the blood and tears of their own offspring. Falsehood, cunning, and deceit are their environment as the results of legislation that would save them to a better man and womanhood, under the pressure of the parental greed or imagined necessity.

The physician knows, as no one else, the moral and physical effect of the confining labor in factories upon the young, not only in the stunting and arresting of their youth, but in the sapping of their manhood and vigor.

“They know the grief of man without its wisdom;
They sink in man’s despair without its calm.”

I urge you who see the travail of the childish souls, to voice their childish wrongs.

Those who take upon themselves these tasks: the obstinacy of vested interests, the opposition of the ignorant, the dislike of that complacent citizenship which prefers the dishonorable peace of acquiescence to the knightly tumult of revolt.

I remember, not so long ago, how one summer physicians were roughly blamed for not reporting cases of an infectious disease, and the next summer every pressure was brought to bear upon them by reputable citizens to force them not to report them. The business interests of the city, it was claimed, were at stake.

My friends, publicity in the most potent factor in the process of

reformation. If this city, or any part of this city, nurses conditions which are a menace and a threat to the public welfare, I believe it is the solemn duty of those under whose observation these evils fall to invite the name of traitors, by loyalty to a deeper than the surface truth.

I do not depreciate the efforts that are made. I acknowledge the painful lack of money in the public chest to accomplish more for the better sanitary conditions. I admit the low death rate at certain seasons of the year, compared with other cities of like size. But I protest that a city that can so graciously entertain the world, at such large cost every year, should be summoned to consider whether, having done that, there are not other things of at least equal importance, which should not be left undone.

We should have a tenement house commission at least to regulate the building, remodelling and occupancy of dwellings, where the very poor have no choice but to live. Will you ask for it?

The time will come when in New Orleans, as elsewhere, men and women will be inspired to give their wealth for the prevention of misery and wretchedness, as they now give generously for their amelioration.

We are seeing the beginnings of it. It will come, that happy day, when men will know what they deny or doubt, or fear to have brought to their notice.

You, gentlemen, are busy and hardworked men, but can speak with unquestioned authority, and with motives that can not be impugned, concerning these problems which increase with population, and multiply with the expanding industrialism to which we point with pride.

You must be staggered often under your consciousness of the burden of humanity.

See, through the rocks of the world
Marches the host of mankind,
A feeble wavering line.
Where are they tending? a God
Marshalled them, gave them their goal.
Ah! but the way is so long!
Years they have been in the wild!
Sore thirst plagues them, the rocks

Rising all round, overawe;
 Factions divide them, their host
 Threatens to break, to dissolve.
 Ah! keep, keep them combined
 Else of the myriads who fill
 That army, not one shall arrive.
 Sole they shall stray; in the rocks
 Stagger forever in vain;
 Die, one by one, in the waste.

But I know of no organized body of men so competent as this, speaking from their first hand knowledge, without rhetoric, without bombast, to arouse the civic conscience to a civic consciousness of duty. For

Languor is not in your heart,
 Weakness is not in your word,
 Weariness not on your brow.
 Ye alight in our van, at your voice
 Panic, despair flee away.
 Ye move through the ranks, recall
 The stragglers, refresh the outworn,
 Praise, reinspire the brave!
 Order, courage, return,
 Eyes rekindling, and prayers
 Follow your steps as ye go.
 Ye fill up the gaps in our files
 Strengthen the wavering line.
 'Stablish, continue our march.
 On to the bound of the waste
 On to the city of God.

MEETING OF JANUARY 23, 1904.

DR. MAGRUDER, President, in the Chair.

DR. ALLAN C. EUSTIS read a paper on

**Report of a Case of Pemphigus Vulgaris, with Some
 Observations on its Bacteriology.**

(Abstract).

The disease occurred in a negro laborer, fifty years of age, native of San Domingo, but a resident of New Orleans since his childhood. There was a history of infection from a German who had joined the camp of laborers, and three of the patient's fellow laborers had died from the disease, while one had lost his eyesight. There was no history of either acquired or congenital

syphilis. He had never been vaccinated but had had smallpox in 1868. He was admitted to the Charity Hospital after having had the disease for two months. First appearance of the disease was a small elevation at the root of the penis, which rapidly developed into a "blister," spreading from here to thighs, axilla and finally covering the entire body on the flexor as well as the extensor surfaces. Eruption consisted of multiple bullæ without grouping, rising from healthy epidermis and ranging in size from that of a pea to that of an egg, and tense in the majority of instances. A few of the blebs had undergone absorption to a limited extent. Eruption came out in successive crops preceded by intense burning.

Course of the disease:—The disease ran a mild course of ten days with a maximum temperature of 103°F., followed by rapid convalescence. Great emaciation was noted. The heart and lungs were normal throughout the disease, the mucous membrane of the mouth presented small ulcerations and there was a purulent discharge from the nose. Examinations of the urine showed a specific gravity ranging from 1011 to 1025, and the only pathological findings were a few hyaline casts, which were found but once. Excretion of urea was normal.

Treatment:—Consisted in the administration of quinin sulphate, grs. 5, strychnin sulphate, gr. 1-30, every four hours, together with increasing doses of Fowler's solution. Local treatment consisted of daily baths of soda and the dusting of boracic acid powder over those surfaces which were denuded.

When discharged the patient had no signs of the disease and subsequent outbreaks of the disease after leaving the hospital were controlled in each instance by administration of Fowler's solution.

Bacteriological Experiments:—A micrococcus occurring usually in pairs was isolated in pure culture from the contents of a bleb on the ear of the patient. It grows on agar, glycerin agar, blood serum and in bouillon. It is a facultative aerobic organism, does not ferment glucose or lactose, and does not coagulate cow's milk. It measures from 0.5 micromillimeter to 1.2 micromillimeters. It is identical with the organism isolated by Demme, Claessen, and others.

Cultures of the organism, when injected into the marginal vein of the ear of a rabbit, caused death of the animal in nine days. No

cutaneous lesions were produced but the animal had constant temperature of 104°F. or over, and postmortem examination presented localized congestion of the lungs, with ulcerations in the stomach and intestines. Stained specimens of the organs showed the organism present therein. Pure cultures of the original organism were recovered from the blood of the rabbit before death.

Cultures of the organism obtained from the rabbit were injected into pigs and a pustular eruption was produced, but the organism was not recovered from these animals. Cultures injected into a guinea pig caused death but were non-pathogenic when injected subcutaneously into a white rat.

Conclusion.—1. A diplococcus can be isolated from the contents of the blebs of a case of pemphigus vulgaris.

2. These diplococci, when injected intravenously into a rabbit, are pathogenic to said animal and the original organism can be obtained from the blood of the rabbit previous to death.

3. Cultures of the organism obtained from the blood of the rabbit when injected intravenously into the pig produce a pustular eruption in the latter animal.

4. Arsenic is the chief remedy to be relied upon in the treatment of pemphigus vulgaris.

DISCUSSION.

DR. JNO B. ELLIOTT, JR., asked as to the existence of syphilis. He mentioned the case of a child treated by him with arsenic in which syphilis was at the base of the affection.

DR. GESSNER mentioned a case of pemphigus neonatorum where there was no syphilis; recovery occurred under expectant treatment.

DR. EUSTIS made a motion that Dr. Van Wart be given the privilege of discussing the paper.

DR. VAN WART said that the evidence in favor of a nervous origin of the disease was not very definite. The changes described were pigmentation of the nerve cells and slight chromatolysis in the cells of the posterior root ganglia. In the light of the very definite lesions found in herpes zoster these could hardly be considered adequate to account for the great disturbance found in this disease. The evidence in favor of the bacterial origin of the disease was more definite. He had listened with great interest to Dr. Eustis'

remarks concerning the presence of gastro-intestinal lesions in these cases. The original cases of Neumann all showed them. Dr. Eustis had failed to mention the presence of eosinophiles in the fluid in the bullæ. This had been observed in a number of cases and seemed to be of diagnostic value. Another point of interest was the fact that this case had occurred in a negro. In that race cases are rare. He had seen two cases and both were fatal. Both showed marked lesions in the gastro-intestinal tract. He would like to call attention to the remissions which occurred in Dr. Eustis' case. He trusted Dr. Eustis would keep the case under observation and in a future communication give us the further history.

DR. EUSTIS closed by saying that he had not brought in the consideration of eosinophiles so as not to unduly lengthen his paper. Eosinophilia in pemphigus vulgaris amount to as high as 50 to 51%, and was a guide not only to the diagnosis, but also a valuable factor in prognosis. He wished to bring out particularly the presence of gastro-intestinal symptoms evidenced by the presence of ulcers. He also mentioned the great depression and emaciation which followed the onset.

DR. LANDAUER asked whether the eosinophiles were increased in direct proportion to the other leucocytes, or at the expense of the polymorphonuclear.

DR. EUSTIS said that he could not state positively, but thought that some such destruction must take place.

DR. RENAUD read a paper on *A Few Exceptional Asthenopic Reflexes Due to Refractive Error*. (*Unable to secure paper in time for publication*).

DISCUSSION.

DR. STORCK, in reference to vomiting, related the case of a boy of 13 with persistent vomiting in whom he had made an exhaustive examination, treated for several weeks without benefit. Had stopped the boy from going to school. He noticed that the boy, if he did not read, had no vomiting. He suspected astigmatism and sent him to an oculist. The wearing of glasses for three weeks checked the vomiting completely. The boy still wears glasses.

DR. EUSTIS spoke of the cases of epilepsy as being especially

interesting, in view of the hopelessness of our usual method of treatment. He said that in Philadelphia a large number of cases of epilepsy had been treated by Dr. Gould and cured by a routine examination of the eyes and the use of glasses in suitable cases.

DR. PATTON mentioned a case of nausea similar to Dr. Storck's, similarly treated and relieved. He would emphasize the importance of having the eyes tested in all such cases.

DR. MILLER did not know of any gynecological cases, but of a case of constipation cured by correction of an eye strain.

DR. VAN WART wished to call attention to the great care necessary in diagnosis. Cases of epilepsy were, in his experience, rarely benefited by corrections of errors of refraction. This, however, should be done in every case where any error was present, with a view to, if possible, lessening the number of attacks.

In regard to chorea care again was necessary. Many cases of habit spasms were benefited, if not cured, by the correction of refractive errors; he expressed doubt as to it proving of much benefit in the true chorea of Sydenham. He wished to call attention to the difference between the two classes of cases and again asked that in reporting such cases care be exercised in making a diagnosis.

DR. RENAUD, in closing the discussion, said he was glad to hear of cases mentioned of gastro-intestinal disorders relieved by the correction of eye-strain. As to Dr. Van Wart's allusion to chorea, Dr. Renaud said that he was not a neurologist and that his cases were perhaps habit spasms and not true chorea. That a case of constipation like Dr. Miller's was mentioned in the literature on the subject. He agreed fully with Dr. Feingold and stated that in nervous patients the extraordinary amount of work performed by the ciliary muscles exaggerated, in cases of myopia and hypermetropia, was wonderful. That the most worked organ of the body, the heart, had periods of rest; not so with the ciliary muscles. They are constantly at play, from the time of waking to the time of sleeping.

RELATION OF CASES.

DR. MILLER, related a case of persistent vomiting, followed by death. The patient was extremely nervous, was seven months pregnant at the time of death; slight albuminuria. For the first few days preceding death the temperature was normal, then sub-

normal. Was delivered of twins. For months previous vomiting was persistent, especially in the morning. For the last two days previous to death the vomiting was incessant. Delivery normal. Death took place 12 hours later. The doctor spoke of the importance of having these patients in an institution where they can be closely watched and controlled. That in this case the beginning was insidious and the condition reported to him by the attendant only at a time when interference was too late.

DR. PERKINS related a case of the amputation of the lower third of the thigh for a stab wound of the femoral vein. Vein ligated, gangrene followed and the amputation became necessary. The patient came to Ward 10 with a painful stump, the pain being extremely severe and referred to the foot. Opiates had to be given to relieve. While in the ward he was taken with pains in the left kidney and passed a stone. The pain ceased altogether in the stump for six days, when the pain returned and an excision of the sciatic nerve, the nerve extremity being located in the stump, had to be performed. He might explain the overshadowing of the lesser pain by the greater as in counter irritation, but not an interruption of pain for six days, as in this case. He wished to hear the opinion of the members.

DR. PATTON asked if the patient had taken any opiate to relieve the pain.

DR. PERKINS replied that the patient took opiates, but not regularly.

DR. BLUM asked if Dr. Miller had tried the knee chest position.

DR. MILLER replied in the affirmative.

DR. GESSNER had tried the knee-chest position in cases of vomiting of pregnancy with no benefit.

DR. KEITZ spoke of a case where he had been successful in the knee-chest position. He also spoke of a case 15 years ago in which Dr. J. H. Lewis, uncle of Prof. E. S. Lewis, had been called in consultation. Had prescribed bromide and chloral and finally abortion had to be induced to check the vomiting. Immediately upon recovering from the passage of the ovum the patient was able to eat a large meal.

DR. PERKINS spoke of another case where pain in the ovarian region was present in a case of midwifery. He placed the patient in the knee-chest position, with negative results. He then thought

that the pain was probably due to pressure of the fetal head on some pelvic organ, such as an ovary. Bromide and chloral was given and the fetal head pushed up. Something slipped and complete and permanent relief was obtained, which had failed to yield before to morphin. Four weeks later the woman was delivered in normal labor.

Miscellany.

TREATMENT OF WHOOPING COUGH.—J. Bernard (*Le Mois Therapeutique*) employs the following to relieve the paroxysms in this disease:

℞. Bromoform1 gm. (15 grs.)
 Tinct. aconite.....1 gm. (16 m.)
 Alcohol 90%.....20 gms. (5 ℥.)
 Syrup codein.....100 gms. (3 1-3℥.)
 Syrup Tolu.....150 grms. (5 ℥.)

M. Sig. One dessertspoonful three times a day.

Huchard associates quinin with aconite, thus:

℞. Quinin sulfate, ext. cinchona, of each..2 gms. (30 grs.)
 Ext. aconite.....0.1 gm. (1½ grs.)

For 20 pills. Sig. One three times a day.—*American Medicine*.

Correspondence.

CAMPINAS, BRAZIL, January 4, 1904.

Editors New Orleans Medical and Surgical Journal:

GENTLEMEN—In looking over statistics, to my surprise, I see that leprosy is quite common in the United States.

In Brazil, of course you know, it is a common thing to see lepers every few leagues in camps, men, women and children, depending on charity, which is never lacking, so far as food, raiment, etc., are concerned.

The larger towns nearly all have leper homes, that is a place more or less cleanly—generally less—where they can go to die, but never to get well.

I have known one, however, to get well, and only one. This leper I have known personally thirteen years and when I first saw him the characteristic tubercles of face, nose, ears and fingers were well developed but not ulcerated. He was never treated; so in the course of five or six years his face was horrible, the tubercles having broken down; and he had lost all his toes and all fingers except thumb of right hand. In this condition I often saw him at camp but he could not go begging over the country.

One night, while sleeping, one of the most deadly snakes known in this country "*Jararacasi*" bit him on the leg.

All thought it was a God's blessing as now he would certainly be free from misery in a very short while. No medicine whatever was given, and he continued in the balance for nearly two days, when he commenced gradually to recover.

With his recovery from the venomous bite and intoxication his ulcers began also to improve and in the course of sixty days he had peeled off "like an onion." This has been near seven years ago and he is, so far as I can detect, free from any leprous trouble.

I write this as at some day it might be beneficial to many sufferers, for I fully believe snake venom to be a curative agency but I would not like to use it in such heroic doses. The *Jararacasi* is to all appearances the same as the snake known in your Southern States as "rattle snake pilot" or some say, "male rattler."

Yours etc.,

DR. CICERO JONES.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Purifying the Mails and Papers.

Is it a coincidence or does there exist the relation of cause and effect between the determination expressed by the Post-Office Department to wage a campaign against the circulation in the mails of periodicals containing objectionable medical advertisements and the announcement of some few magazines and newspapers that they will henceforth exclude quack and indecent matter from their columns?

At any rate both facts are welcome news and presage more good to come. The JOURNAL has more than once raised its voice against the evil which is about to get a serious blow and, while congratulating the Post Office Department and the reforming publications, will endeavor to stimulate a continued effort in the same line.

Renewing Prescriptions.

While argument might be needed to convert some of the laity and convince some of the judiciary, the evils of the unauthorized renewal of prescriptions must be patent to physicians.

It is a source of error, leads practically to illegal prescribing, encourages loose methods in practice and conduces to the formation of drug habits.

We should see that it is stopped by law. It could be done without questioning the ownership of the original prescription. Such, when not retained by the druggist, could be stamped "filled," or some equivalent term, with the date, and would no longer be valid and would be good only for reference.

We submit the idea to the committee on legislation of the Parish and of the State Medical Societies.

The Daily Medical.

The plan of a daily medical publication has finally matured, and now for a full month we have received the little sheet of the new enterprise. The average number presents short news items, one or more original papers, discursive abstracts and a good editorial page. The initial editorial defines the policy of the paper and in the main declares for a democratic purpose and polemic method. This latter is in evidence and the same editorial lifts the standard of the paper with indirect imputations as to the policy of other medical journals, a questionable argument, to say the least.

The daily medical publication should succeed if its lines are broad and if it stands for the medical profession in all things. A large circulation is necessary to its life and it may command this solely on the highest merits, in providing news which is news and in carrying only the best of discursive topics; not to mention clean and wholesome advertising.

Reflection.

Some political economist, dealing with the problem of the birth-rate in various countries, ventured the opinion that at the average then prevailing the world in a hundred years would have scarcely room for all souls living. There was recited the rapid advances made in the prophylaxis against disease, especially in urban improvement. Almost as a rebuke to the profane pronouncement there followed in series the Galveston cataclysm, the Martinique disaster, the Chicago horror, and now the Russo-Japanese War—not to mention the average list of casualties, all working to the end of maintaining the balance of human life as related to supply and demand.

The human temperament has never varied in the average type. Civilization has only refined the methods of the expression of its brutalities—but the instinctive desire for the top, supremacy in power, physical or spiritual, must compel the subservience of even human life itself. We watch the struggle from our own niche in the universal amphitheatre, content to feel that here and there the world has perhaps been bettered some by our aid; from day to day develop the kindlier descent into the other world or light some broken soul out of the valley of Despair; but on goes the

great wheel, in its mighty revolution carrying the good and ill in spite of those who go straight to destruction as they essay to stop the span, to test the speed, or to draw the secret of the great panorama, which never stops.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, assisted by DR. C. J. MILLER, New Orleans.

TOXEMIA OF PREGNANCY.—William S. Stone concludes an extensive article published in *American Gynecology*, Dec., 1903, with some remarks on the question of interrupting pregnancy in the acute and subacute types of hyperemesis gravidarum.

The question of interrupting pregnancy is a difficult problem and upon its proper solution the patient's life may depend. The mortality of this group of cases is given as from 30 to 50 per cent., which is estimated largely from what we have called the subacute type, as the fulminating or acute type are not so largely represented in the literature. This problem will not be solved by simply interrupting pregnancy, say one week earlier than is our custom. Bacon citing Cohnstein, says that out of 200 cases 40 per cent. continue to vomit after the interruption of pregnancy. He says the induction of abortion is not indicated, where it is safe and efficient it is not necessary, while in extreme cases it adds greatly to the danger and rarely stops the vomiting.

In some cases it can be obviated by the injection of artificial serum.

Hirst reports a mortality of 95 in 239 cases, of which 36, treated by abortion, 9 died, and of 57 treated by ordinary methods, 28 died.

A careful distinction in answering this question must be made between the acute, or fulminating, and the subacute types. The

slower progress in the latter makes the question easier to answer, provided the three symptoms that are indicative of serious liver disease are kept steadily in mind,—rise of pulse, black vomit, urinary changes. It must be also emphasized that only one of these symptoms may be present and their order of appearance may differ. It should be especially noted that urinary changes, as determined by the usual methods, may not appear until very late, or even then be very slight.

Jewett is right in saying he would interrupt pregnancy before the appearance of black vomit. The writer would say that pregnancy ought to be interrupted before the appearance of any of these symptoms. If the black vomit has appeared it is more than likely that the operation will hasten the fatal termination, but one might be guided by the evidences of the presence or absence of toxic nephritis. In the acute or fulminating type he thinks the matter of intervention is open to the most serious doubt. At the very onset of the disturbance, if either the pulse, vomit, or urine show changes indicative of present or impending disaster, it may be done; but in this type of case, days are minutes, and events follow each other in such rapid succession that the patient is so quickly and completely prostrated that the operation, as Reynolds says, simply precipitates the fatal result.

SARCOMATOUS TRANSFORMATION OF MYOMATA.—Thomas S. Cullen (*Journal A. M. A.*, Oct. 24) states that myomata undergo sarcomatous changes much more often than is generally suspected. The sarcoma usually develops in one of several myomata and may be situated in a sub-peritoneal, interstitial, or submucous nodule. Whenever sarcoma or carcinoma may exist with myomata panhysterectomy is imperative. Bisection of the uterus is contraindicated where there is a possibility of a malignant growth developing, or associated with the myomatous uterus. In every case of hysteromyomectomy it will be advisable to have an assistant open the uterus immediately on its removal to determine if carcinoma of the body exists and to find out whether the myoma has become sarcomatous. If malignancy is detected the cervix can be removed without delay. The clinical history is rather significant:

A myomatous uterus has lain comparatively dormant for several years and the patient comes with a history of rapid uterine enlargement during the last few months. If the myoma has been

submucous, portions have from time to time been expelled and there is a free offensive discharge. The patient soon becomes cachectic.

THE IODINE TREATMENT OF PUERPERAL SEPSIS.—W. R. Pryor contributes to the *N. Y. Med. Journal*, August 22, 1903, the result of his experience of septic cases treated by opening the vaginal vault and the introduction of iodoform gauze into the pelvis.

In every case of puerperal streptococcus endometritis, streptococci were found free in the pelvis, and in over 97 per cent. of cases they are present in the uterine contents.

After cleansing out the uterine cavity, he opens the posterior cul de sac and packs both with large quantities of iodoform gauze. In nearly all cases, after this procedure, cocci will be absent after the third dressing. The iodoform acts by causing local iodism and it is this that sterilizes the pelvis. Pryor reports 37 cases treated by this method, 27 of which had had no previous operation and only one died, while ten had been previously curetted by others and three died.

In all of the cases enteroclysis, or intravenous infusion accompanied the operation to aid in eliminating the iodine and toxins by the damaged kidneys.

In a later article (*N. Y. Med. Journal and Phil. Med. Journal*, January, 1904), in commenting on the morbidity of the cases treated by this method, in his own work and by others, Pryor says, "we have found that six of the subjects have subsequently conceived, five going to full term, one inducing abortion at the fifth month. Contrast this treatment with that of curetting alone with a mortality of 22 per cent; antistreptococcus serum mortality of 33 per cent.; hysterectomy, mortality 55 per cent.; and the let-alone treatment mortality of 7 to 25 per cent. and we having nothing for which to apologize.

"But there is another phase to the subject. All of the women we have operated on and who have lived, have kept their uteri, and six that we know of have had a restoration to physiological function.

Department of Therapeutics.

In charge of DR. J. A. STORCK, New Orleans.

RADIUM IN MEDICINE.—Sir Henry Crookes has carried out some experiments which show that radium has marked bactericidal properties. Caspari exposed cultures of the micrococcus prodigiosus to a preparation of radium which destroyed the germ in three hours. Soddy, of England, has suggested the inhalation of the emanations of radium for consumption. Tracy, of New York, has very recently carried out some experiments in induced radio-activity. He finds a normal salt solution one of the best media for receiving this radio-activity. This property suggests the hope of finding an effective way of using it internally. A spray of the normal salt solution impregnated with radium will leave the mucous membranes of the nose and throat covered with this radio-active matter, which is antiseptic to a marked degree. It may turn out to have a powerful effect in the relief of cancer of the stomach. Surgical dressings may also be sprayed with radioactive salt solution.

It has already been clearly proven that radium rays have a very decided influence in inhibiting the progress of diseased tissue. The emanations of radium seem to offer some advantage over the X-ray in the treatment of deep-seated cancer. The X-ray has not been a success in this affection. Owing to the penetrating power of the emanations of radium, it will be possible to apply these rays to the seat of the disease. I have found reports from the following cases:

MacIntire, of Glasgow, reports two cases of lupus—one of the hand, one of the nostril and nose—both of which were healed by the radium ray. MacIntire also reports favorably of its use in rodent ulcer.

Gussenbauer, of Vienna, reports good results and some cures in twenty cases of cancer treated by him.

Lunder, of Berlin, claims to have had good results in cases of blindness from the stimulating effects of the radiations on the eye. It may be that this new agent will prove valuable in these hopeless cases of optic nerve atrophy.

Tracy also reports a case of epithelioma improving under the influence of a tube of radium of 300,000 activity containing ten

milligrams. The same physician has also tried this tube on a case of optic atrophy in a man 52 years old. Some improvement has taken place, though the patient is still under treatment. Dr. Blaudamour, using a tube of radium with an activity of 5,200, reports the cure of lupus.

Dr. Meyer and William J. Hammer improved a large axillary cancer with radium of 300,000 activity. The exposure was one minute daily. While this case was incurable, the cancer grew smaller, and less painful under the rays.

Dr. A. H. Smith reports having seen in a European clinic a rodent ulcer perfectly healed after five exposures, though this ulcer had been treated by the X-ray without benefit.

The place of this new element as a therapeutic agent has yet to be determined. At present the cost of it and its scarcity prevents its coming into general use. But if it can be found even in limited quantities, it will have this advantage of the X-ray; it will require no costly apparatus—merely a test tube. It will be free from expense of wear and tear. It can also be carried anywhere for use. This is a newly discovered force. It will have powers for evil as well as for good. Before long the charlatan will be exploiting its wonderful powers in the daily press at so much per line.—JOHN INGLIS, M. D., *Jour. A. M. A.*

THERAPEUTIC USES OF METHYLEN BLUE.—Meillère (*La Tribune Médicale*) reviews the therapeutics of methylen blue very fully. He believes that it possesses analgesic, antipyretic, diuretic, and cholagogue properties, and that it has proven of value in malaria in rheumatism, in gonorrhœa, and other inflammations of the genito-urinary tract. Good results are claimed for it in cases of enterocolitis, when used as an enema. As a topical application it has been found useful in the treatment of inflammations of the nasopharynx, middle ear and eyelids, and also in pruritus. Meillère states that the maximum dose for internal administration is 25 centigrams.—*The Therapeutic Gazette.*

THE TREATMENT OF ACUTE CARDIAC FAILURE.—“In a paper on the treatment of acute cardiac failure, Sir Douglas Powell, at the Medical Society of London, laid stress on the danger of overfeeding in cases of mitral stenosis. In such cases a plethoric condition resulting from too liberal a diet increases the pressure in the right heart, and might cause acute and fatal failure of the right heart—a disaster which should be avoided by limiting the diet and giving

occasional laxatives to unload the portal circulation. The best treatment when the cardiac failure occurs is immediate venesection, and the use of strychnin and oxygen. Sir William Broadbent pointed out that sudden death in cases of mitral stenosis might be due to a more direct mechanical effect of a distended stomach pressing upon the right heart.

Sir Lauder Brunton also considered that the mechanical effect is more often responsible for the fatal result than is the mere increased flow of blood during digestion; the distension of the stomach might be equally disastrous, whether it were due to food or to flatulence. Several speakers emphasized the importance of avoiding such mechanical interference with the heart's action in cases of pneumonia where cardiac failure is so liable to occur.—*The Therapeutic Gazette (London Letter)*.

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary, 163 University Place,
New Orleans.

NEXT MEETING, NEW ORLEANS, LA., MAY 10, 11, 12, 1904.

OFFICERS—President, Dr. J. M. Barrier, Delhi; 1st Vice President, Dr. L. G. LeBeuf, New Orleans; 2nd Vice President, Dr. F. J. Mayer, Scott; 3rd Vice President, Dr. Oscar Dowling, Shreveport; Secretary, Dr. Wm. M. Perkins, New Orleans, Treasurer, Dr. M. H. McGuire, New Orleans.

COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St Charles St., New Orleans; S. L. Williams, Sec'y, 5th Cong. Dist., Oak Ridge; J. F. Buquoi, 1st Cong. Dist., Pointe-a-la-Hache; F. R. Tolson, 3d Cong. Dist., Lafayette; N. K. Vance, 4th Cong. Dist., Shreveport; C. M. Sitman, 6th Cong. Dist. Greensburg; C. A. Gardiner, 7th Cong. Dist., Bristol.

Chairman Committee on Arrangement, Dr. L. G. LeBeuf, New Orleans, La.

PLAQUEMINES PARISH MEDICAL SOCIETY held its annual meeting in the Courthouse at Pointe-a-la-Hache on January 20. The following members were present: Drs. Hayes, Johnson, Ballowe, Schayot, Thomas and Buquoi. The medical affairs of the Parish were discussed and several minor changes made in the Constitution and By-laws. The Society decided to meet bi-annually, on the second Sundays of January and July. Dr. J. F. Buquoi, retiring Secretary-Treasurer and Councillor for the district, resigned membership in the Society, as he had moved into St. James Parish. He was elected an honorary member. The social gathering and banquet at Marcus Hotel pleasantly concluded the meeting. Fol-

lowing are the officers for 1904: President, Dr. G. A. B. Hayes; Vice President, Dr. V. O. Schayot; Secretary-Treasurer, Dr. H. J. Ballowe. Following committees were appointed: Public Health and Scientific Work, Drs. Ballowe and Schayot.

TANGIPAHOA PARISH MEDICAL SOCIETY held its annual meeting on January 13, at Amite City, eight members present. Dr. H. P. Morris read a very able paper on "Bichloride Experience in Pneumonia," which was freely discussed. Cases of "Diphtheria," "Hæmophilia" and "Prolapse of the Rectum" were also discussed. The names of Drs. R. W. Travis and C. V. McConico were added to the membership list, making a total of nineteen. Following officers were elected for 1904: President, Dr. J. H. Ellis; Vice President, Dr. C. S. Stewart; Secretary-Treasurer, Dr. J. L. LeNoir.

THE BI-PARISH MEDICAL SOCIETY (Red River and Natchitoches), held its quarterly meeting in the Courthouse, Natchitoches, January 12. After prayer by Dr. Fontleroy and an address of welcome by Prof. Caldwell, the Society adjourned until the next day at 2 o'clock, when the meeting was called to order by President Edgerton. The following members answered roll call: Drs. Stephens, Gallion, Leake, Williams, Galloway, Edgerton, Adams, Truly, Lynch, Keater, Hargrove and Hendrick (12). The Secretary was then instructed by the President to secure Constitution and By-Laws for Parish Societies and mail one to each member of the Society. On motion of Dr. Galloway it was decided that the Society meet twice a year, once in Natchitoches Parish and once in Red River Parish, the time of meeting to be the Wednesday after first Monday of April and December, officers to be elected at the April meeting. On motion of Dr. Leake, it was voted that the President appoint two members at each meeting to read papers at the next regular meeting, this however, not to bar papers or reports of special cases of interest and importance. The President appointed Dr. Leake to read a paper on some surgical subject and Drs. Williams, Truly and Lynch to discuss the paper. Dr. J. S. Stephens was selected to read on some medical subject and Drs. McGoldrick, Hargrove and Galloway to discuss the paper. After the reading of a paper on "Pernicious Malarial Fever," by Dr. Galloway, the meeting adjourned to meet at Coushatta (Red River Parish), in April.

SOCIETIES CHARTERED SINCE PUBLICATION IN
FEBRUARY JOURNAL.

IBERVILLE PARISH MEDICAL SOCIETY.—Organized June, 1903. Chartered January 20, 1904. Charter members 14. President, Dr. A. A. Allain, Bayou Goula; Vice President, Dr. F. J. Kearney, Plaquemine; Secretary-Treasurer, Dr. Eugene Holloway, Plaquemine. Following are also charter members: Drs. W. L. Grace, W. E. Barker, L. T. Postell, W. A. Holloway, Simon C. Levy, Plaquemine; W. G. Owen, E. O. Trahan, J. B. Brown, White Castle; L. H. Viallon, Bayou Goula; A. W. Tufts, Musson Station; Sam Singletary, Rosedale.

IBERIA PARISH MEDICAL SOCIETY.—Organized October 26, 1903. Chartered January 25, 1904. Charter members 9. President, Dr. G. J. Sabatier, New Iberia; Vice President, Dr. George P. Minvielle, Jeanerette; Secretary-Treasurer, Dr. J. Wofford Sanders, New Iberia. Following are also charter members: Drs. I. T. Rand, Cade; M. B. Tarleton, J. G. Bouvier, P. A. Boykin, Jeanerette; W. J. Emmer, New Iberia; U. S. Perret, Patoutville.

ST. TAMMANY PARISH MEDICAL SOCIETY.—Organized October 20, 1903. Chartered February 1, 1904. Charter members 11. President, Dr. R. B. Paine, Mandeville; Vice President, Dr. J. F. Pigott, Covington; Secretary-Treasurer, Dr. H. D. Bulloch, Covington. Following are also charter members: Drs. A. M. G. DeMonsabert, Numa Hébert, F. G. Marrero, Covington; O. E. Parker, Slidell; G. A. Pennington, Madisonville; J. F. Polk, Slidell.

CLAIBORNE PARISH MEDICAL SOCIETY.—Organized February 2, 1904. Chartered February 8, 1904. Charter members 8. President, Dr. J. D. Calhoun, Homer; Vice President, Dr. J. C. Sherman, Haynesville; Secretary-Treasurer, Dr. J. E. Knighton, Homer. Following are also charter members: Drs. L. T. Waller, Haynesville; H. W. Jarrell, Aycock; W. C. R. Ford, Lisbon; J. C. Calhoun, Homer; J. W. Featherston, Homer. Following standing committees were appointed: On Program and Scientific Work, Dr. J. E. Knighton, Chairman, and Drs. J. C. Calhoun and Waller; On Public Health and Legislation, Dr. J. D. Calhoun, Chairman, and Drs. H. W. Jarrell and W. C. R. Ford. The Society will meet quarterly.

BI-PARISH MEDICAL SOCIETY (Red River and Natchitoches). Organized September 15, 1903. Chartered February 17, 1904.

Charter members 19. President, Dr. C. E. Edgerton, Coushatta (Red River); First Vice President, Dr. Samuel Scruggs, Cloutier-ville; Second Vice-President, Dr. W. G. Sibley, Robeline; Secretary, Dr. J. A. Hendrick, Eastpoint; Treasurer, Dr. James McGoldrick, Coushatta. Following are also charter members: Drs. R. P. Jones, Eastpoint; E. F. Allums, Polk; J. L. Page, Des Arc; W. W. Teer, Liberty; I. N. Adams, Campti; J. S. Stephens, J. B. Hargrove, W. T. Williams, F. W. E. Truly, Z. T. Gallion, R. C. Lynch, J. P. Leake, Natchitoches; P. E. Waddell, Clarence; W. E. Addison, Provensall; C. Galloway, Lake End; J. I. Keator, Bermuda. Meets semi-annually, on the Wednesday after the first Monday of April and December.

THE ST. JAMES PARISH MEDICAL SOCIETY will hold its second quarterly meeting on March 3, at Convent, La. A symposium on "Pneumonia and Its Treatment" is part of the program for general discussion. Members are requested to come prepared to give their experience with the disease.

THE PHYSICIANS COMPOSING THE TRI-PARISH MEDICAL SOCIETY (Claiborne, Webster and Bienville) have decided to organize individual societies for each parish and apply to the State Society for charters for each. In doing this, however, it is not the intention of the promoters of the Tri-Parish Society to disband that organization, but to continue their pleasant relations and affiliate with the State Society through the individual societies. Claiborne Parish organized on February 2 and has already been chartered. Bienville and Webster will organize shortly.

SECTIONS.

SECTION ON OBSTETRICS.—*To the Members of the Louisiana State Medical Society:*

As Chairman of the Section on Obstetrics, I wish to solicit papers from that Section. This is at all times an interesting and important subject to the general practitioner and ought to appeal to him strongly. No set subject is announced, hence the writer is left to select at will. Members intending to contribute to this Section will kindly send the titles of their papers as soon as possible to the Chairman of section.

DR. A. C. KING,

305 Vallette St., New Orleans, La.

OPHTHALMOLOGY.—"Dacryocystitis," by Dr. R. F. Harrell, Ruston; "Report of a Unique Case of Destruction of Both Eyes by

a Stray Bullet from a Pistol," by Dr. F. M. Thornhill, Arcadia;
"Gunshot wound of the Face Resulting in Complete Destruction of
the Sight of Both Eyes," by Dr. O. O. Hamner, Bienville.

TITLE OF PAPERS TO BE READ.—"Surgical Tuberculosis from
an Orthopedic Standpoint," by Dr. E. J. Huhner, New Orleans.

Orleans Parish Medical Society Notes.

[Edited by the Publication Committee, Drs. S. M. D. Clark, Chairman,
Jules Lazard and N. F. Thiberge.]

The Committee on Hospital Abuse submitted its report at the last meeting and the Society feels that a step forward has been made in correcting the abuse existing at the clinics of the Charity Hospital, in that the Board of Administrators has authorized the clerk to make inquiry as to the financial position of the applicant for treatment when there exists any reason to suppose that a patient is not a subject for charity.

We feel that we are gradually solving the question of a new domicile for the Society. The Domicile Committee has recently issued the following notice to each member of the Society, which goes to show we are in earnest about our moving into new quarters:

NEW ORLEANS, LA., February 17, 1904.

DEAR DOCTOR:

Your Domicile Committee takes pleasure in announcing that we are on the verge of effecting the purchase of a permanent home for the Society. Our plan is to make a partial payment with the Special Domicile Fund now in hand, and to bond the remainder of the amount. We have decided to issue bonds of \$25.00 (twenty-five dollars) each, bearing four per cent. interest. These bonds will be secured by the building and will be a safe investment. The necessary amount must be assured within a definite time. Kindly let us know by February 25th how many bonds you wish to take.

Use the attached slip to convey your decision. We sincerely trust that you properly appreciate the importance of this step and rely on your personal interest in the matter to make it the success we wish to accomplish.

Very respectfully,

E. D. MARTIN,
H. B. GESSNER,
L. G. LEBEUF, Chairman.

I hereby subscribe to.....bonds of \$25 each, bearing four per cent. interest, for the Permanent Domicile of the Orleans Parish Medical Society.

Signed.....

Through the efforts of Dr. LeBeuf, Chairman of the New Domicile Committee, and others associated with him on the Entertainment Committee of the A. M. A., the balance on hand, after paying for the establishment of a Pasteur Institute, was turned over to the Orleans Parish Medical Society as a nucleus for a building fund. The Committee has visited a large number of houses and have been very much pleased with several possibilities.

Every member should subscribe to the bonds being issued by the Committee, thereby doing his share towards finally realizing the sum necessary to purchase a more attractive and serviceable home.

Our present quarters have been made more presentable by having a new matting put down.

The JOURNAL has been awarded the contract for publishing the scientific and business minutes during 1904.

The Transactions for 1903 have been distributed to members.

The Treasurer is making very active steps to save the Society collection fees which amount to over \$200 a year, and every member is urged to remit direct to that officer and not wait for a collector to call. There is no reason why a member of this Society should not pay his dues without being dunned any more than he is by his social club, etc.

Medical News Items.

THE CHARITY HOSPITAL OF LOUISIANA ALUMNI ASSOCIATION held their semi-annual meeting on February 12 at the rooms of the O. P. M. Society. The President, Dr. Bruns, made a short address setting forth the action of the Board of Administrators relative to the House Officers of the Charity Hospital. The meeting in large part discussed the following resolution which was adopted:

Resolved, That this Association express to the Board of Administrators of the Charity Hospital, through a Committee of Three, of whom the President of this Association shall be Chairman, its thanks for their recent action in making the offices of

House Surgeon and First Assistant House Surgeon positions which shall be filled by promotion; and in limiting the tenure of office of the House Surgeon to six years; with the position of Second Assistant House Surgeon filled by competitive examination. It being the understanding of this Association that the Board of Administrators has also decided that their ruling in this regard be made permanent, it is the wish of this Association that its Committee, at the proper time, remind the Board of this action and co-operate with it in securing legislative enactment to that end."

The President then appointed Drs. Bruns, Chassaignac and Jacoby as members of this Committee.

X-RAY PRIZE ESSAYS.—*The Illustrated Review of Physiologic Therapeutics* offers a series of cash prizes for the best essays on X-Rays in Medicine and Surgery.

All interested are instructed to address the *Review* at No. 19 East Sixteenth street, New York City.

THE NEXT MEETING OF THE AMERICAN DERMATOLOGICAL ASSOCIATION will be held at Niagara Falls, N. Y., in June, and the members will meet in Buffalo at a clinical session. The subject chosen for discussion is "Affections of the Mucous Membranes in Their Relation to Skin Diseases."

THE NEXT MEETING OF THE BOARD OF MEDICAL EXAMINERS FOR THE STATE OF TEXAS (regular) to examine applicants to practice Medicine, Surgery and Midwifery in that State, will be held in Austin, Texas, April 21, 22 and 23, 1904. For further information address Dr. M. M. Smith, Secretary, Austin, Texas.

THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION will hold its annual meeting in St. Louis, May 30, June 3.

THE TEXAS MEDICAL GAZETTE, published at Ft. Worth, announces that Dr. Ira C. Chase, of that city, will assist in the editorial conduct of that good journal. Medical news of the State and reports of the County Medical Societies will be a new feature.

DR. N. SENN, who has been travelling in the far East, has returned to this country and expects to go to Japan to take charge of the Red Cross work with the Japanese army. A corps of surgeons will probably accompany him.

THE DAILY MEDICAL, Vol. I, No. 1, says editorially that it considers it a good omen that it appears just as the union of the

Medical Society of the State of New York and the N. Y. State Medical Association is made. The appeal to the Medical Profession of the State to unite came from the American Medical Association, and it is to be congratulated on reconciling the differences in the State organizations that have so long existed.

DR. A. S. POOLE, of Simsboro, La., lost his fine home by fire February 4. Very little of the contents were saved owing to the fact that the people were in another part of the town fighting the fire.

THE NEW MARYLAND MEDICAL JOURNAL lost the entire issue of February by the late Baltimore fire. It was to have contained a number of valuable papers and an exceedingly rare and valuable report of the recent Tuberculosis Congress held in Baltimore.

DR. WILLIS F. WESTMORELAND, of Atlanta, has been appointed President of the State Board of Health of Georgia.

DR. E. SOUCHON, President of the State Board of Health, and Drs. Nolte and Owens went to Mexico in February to inspect the sanitary condition of that country, and to consult with the Mexican authorities in regard to some action to prevent the spread of yellow fever.

DIED.—Mrs. E. A. Blount, at Hornellsville, N. Y., on Sunday, February 14, wife of Dr. E. A. Blount and daughter of Dr. E. S. Lewis of this city. She was a native of this city, and a large circle of friends mourn her loss.

Mrs. Cecil E. Newell, wife of Dr. C. E. Newell, died at the family residence at St. Joseph's, La.

DR. JACOB W. NEWMAN is the new House Surgeon of Touro Infirmary.

THE LOUISIANA STATE DENTAL SOCIETY held its Twenty-seventh Annual Meeting February 17, in this city, and the following officers were elected: President, Dr. S. J. Harrel, Minden, La.; Dr. C. G. Lanoux, New Orleans, La., Secretary. Among the interesting papers was one by the Dean, Dr. A. G. Friederichs, of the New Orleans Dental School, on "Fracture of the Maxillae."

THE LOUISIANA STATE BOARD OF PHARMACY held an examination on February 5 and 6, in this city and only three out of sixteen applicants passed.

THE MEDICAL SOCIETY OF THE MISSOURI VALLEY will hold its Spring meeting at Lincoln, Neb., March 24 and 25.

MESSRS. E. B. TREAT & Co. announce the consolidation of the

International Medical Magazine with the *Archives of Pediatrics*; the journal to be continued under the latter name.

SISTER AGNES, AT THE HEAD OF THE CHARITY HOSPITAL, this City, celebrated her fiftieth anniversary in February as a religieuse. She was placed in charge of the hospital thirty-four years ago and has filled that position very efficiently ever since.

AT THE ANNUAL MEETING OF THE BOARD OF ADMINISTRATORS OF THE CHARITY HOSPITAL, held in February, the importance of an Isolation Hospital for infectious diseases was urged.

NOTICE—A MEETING OF THE MEDICAL DEPARTMENT MEMBERS OF THE TULANE UNIVERSITY ALUMNI ASSOCIATION is called for Saturday, March 5, 1904, at 8 P. M. at the rooms of the Orleans Parish Medical Society, No. 163 University Place. The object of the meeting is the selection of four nominees from whom two shall be selected by the general meeting on March 10 to represent the Department on the executive committee of the association during the ensuing year.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

The Acid Autointoxications by PROF. CARL VON NOORDEN and DR. MOHR. Small 8vo., 80 pages, cloth. E. B. Treat & Co., New York, 1903.

This is part IV or volume IV of the series of Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition, by Prof. Dr. Carl von Noorden, Physician in Chief to the City Hospital, Frankfurt-on-the-Main, translated under the Direction of Boardman Reed, M. D., of which no better idea can be formed than by perusing the preface by the American Editor, here given:

Professor von Noorden's studies into these derangements of metabolism which result in an overproduction of acid, thus endangering the proper degree of alkalinity of the blood, may seem at first more abstruse and of less utility than the subjects of the previous volumes in this interesting series, but in reality they concern the clinician very nearly; moreover, they are in a field which has been hitherto too little explored.

French investigators have until very recently done most work here, the Germans, as our author frankly concedes, having been at first sceptical regarding the doctrine of autointoxication; but since becoming convinced

of its truth, the latter are studying the subject with their accustomed thoroughness. Von Noorden's researches into it have been particularly valuable.

Physicians who treat chronic diseases successfully, must keep a close and intelligent watch upon the digestion, excretion and assimilation of their patients. All such will agree with von Noorden 1, that there are numerous forms or manifestations of self-poisoning; 2, that the acid forms are among the gravest of them, and; 3, that those special perversions of metabolism resulting in the excessive production of oxybutyric acid, diacetic acid and acetone, which so greatly endanger diabetics and also complicate at times other diseases more or less seriously, are of the utmost practical importance. Dr. A. C. Croftan, the translator of the three previous volumes of the series, has performed the same service for this one, and in his customary able and scholarly manner. The author's title may be briefly rendered *The Acid Auto-intoxications and the needs of the publishers* have led to a further contraction of this to the one word *Auto-intoxications*.

The additional notes from Prof. Dr. Carl von Noorden himself is worth while reproducing here. He says: It is a source of satisfaction to me to announce that Messrs. E. B. Treat & Co., New York, have undertaken to publish the collection of these monographs in English. Particular care will be taken to have them appear as nearly simultaneously in New York and Berlin as possible; and I hope that this American edition will meet with the same approbation which I am happy to say has been accorded the German.

E. M. D.

The Self-Cure of Consumption without Medicine, with a chapter on the Prevention of Consumption and other Diseases, by C. H. STANLEY DAVIS, M. D., Ph. D. E. B. Treat & Company, New York.

Consumption, says the author of this most useful book, is the most widespread of all diseases, as shown by the statistics of the various boards of health. It is the most costly of all diseases. It is the most important economic problem that confronts the American people. In New York City there are at least 20,000 people walking the streets each day affected by consumption, and carrying the possibility of infection to the other people of the city, while the death rate, each year, from consumption, in New York State is over 13,000. In the United States there are 1,250,000 cases of consumption, with more than 150,000 deaths from the disease every year. The annual expense of consumption to the people of the United States is placed at \$300,000,000.

One of the noteworthy advances for which the twentieth century promises to be distinguished is the practical suppression of the disease. There is not a shadow of doubt but that consumption can be practically stamped out, as has been typhus fever, Asiatic cholera, yellow fever, leprosy and smallpox. The civilized world is being aroused by the necessity of vigorous and well directed action against the continuous spread of this disease, as well as towards its cure.

The idea that consumption is an incurable disease is still widely prevalent among the people, but there is no reason why any person, not advanced beyond the second stage, should die of the disease. The object of this book is to show how consumption from its first beginnings to its last stages, before actual decay of the lungs takes place, can be cured in, at least, ninety-five per cent. of the cases, and this without the use of medicine. Information and specific instructions are not lacking in this handy book which might prove of service to others besides the non-medical public as the author justly remarks: "There are doubtless many practitioners to-day who have less knowledge of consumption than was taught by Hippocrates."

It is regrettable that the author has not approached the discussion of the sanatorium treatment for the poor beyond the statement that it is a plan now occupying the mind of the whole world. It does not appear that Germany, the originator of the practice, has after all positively settled the question. The statistics are far from demonstrating that the poor man is actually cured and that he returns to his work a valid laborer forever. The French are on the eve of putting the question in a right way and on a practical basis. The cost for curing the poor in sanatoriums and returning to the community useful and valid hands is tremendous, while the result is, in reality, a failure. It does not take a few months to cure consumption; it takes years of persistent care. As long as the poor man is in the sanatorium and well taken care of, he does well and the disease is arrested. But he soon relapses after returning to his toil. It would be cheaper and decidedly more effective to establish him in rural communities, where he will be isolated and might produce by open air work enough to support himself and even others without, or with less, danger of relapsing and with a better chance of being cured for good. The principle that led Pasteur in his work on the disease of silk-worm is ever enlightening; useless to waste time in curing the diseased worms, but protect the seed against contagion and keep the seed in a healthy condition. This would lead to an effective social and economic prophylaxis as regards the treatment of the tubercular poor, by establishing rural communities where isolation on the one hand and conditions essential to a cure on the other will go on for years, while the offspring, less exposed to contagion than in tenements, will grow vigorous and healthy, the saving to the State being on all sides, less expense and more profit. These sanatoriums costing millions to build and to maintain are profitable to architects and builders of a more ingenious type than the common, but after all the monster tuberculosis will soon swallow and annihilate their chef d'œuvre. In his next edition which we sincerely wish for the author and the public, we hope to see this point taken up and discussed in the light of more recent facts and developments. Everybody in this country should be alive to the solution of such a practical subject of social economy. Get the book and read it.

E. M. D.

Manual of Childbed Nursing with Notes on Infant Feeding, by CHARLES JEWETT, A. M., M. D., Sc. D. (Fifth Edition), Revised and Enlarged. E. B. Treat & Co., New York, 1903.

That a man with the acknowledged ability of Dr. Jewett should be able to offer to the nurser of obstetrical cases a guide to the proper performance of their duties, is not to be denied. In this short work he has embodied all the most important features of the technic of the case of the mother and infant. The book is very small, but contains a great deal of useful information.

MICHINARD.

Compend of Gynecology by WM. H. WELLS, M. D., (Third Edition), Revised, Enlarged, with 145 Illustrations. P. Blakiston's Son & Co., Philadelphia, 1903.

This little book, with certain improvements, remains the same practical aid to students of Gynecology as it has been for several years. It is not a compilation from other works but contains a great deal of original ideas that must prove helpful to the student.

MICHINARD.

Arteria Uterina Ovarica or the Genital Vascular Circle, by BYRON ROBINSON, B. S., M. D., Chicago, Ill. E. H. Colegrove, publishers, Chicago, Ill., 1903.

The object of this work appears to be to enlarge our present knowledge of the anastomosis existing in the pelvic vascular system. The work illustrated (and some of the cuts are original and elaborate) to the reader must have consumed great time and labor, but its practical utility remains to be proven, especially in regard to removal of the uterus without ligatures or clamps, and leaving intact the tubes and ovaries. It will appeal to the advanced student of pelvic anatomy. MICHINARD.

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- W. B. Saunders & Co.**, 1903, Philadelphia, New York and London.
Treatment of Fracture (Fourth Edition), by Dr. Chas. Locke Scudder.
A Text-Book of Legal Medicine and Toxicology, by Dr. Frederick Peterson and Dr. Walter S. Haines (Vol. 2).
American Year Book of Medicine and Surgery in two volumes. Editor, Dr. George M. Gould.
- E. B. Treat & Co.**, New York, 1903.
The Self-Cure of Consumption.
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- Hinds & Noble**, New York, 1903.
The Worth of Words, by Dr. Raley Husted Bell.
- F. A. Davis & Co.**, Philadelphia, 1903.
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- D. Appleton & Co.**, New York and London, 1904.
Diseases of the Eye, by Dr. L. Webster Fox.
- J. B. Lippincott Company**, Philadelphia and London, 1904.
Diseases of the Nervous System, by Dr. H. Oppenheim.
Complete Medical Pocket Formulary.
International Clinics, Vol. IV., Thirteenth Series, 1904.
- P. Blakiston's Son Co.**, Philadelphia, 1904.
A Manual of General and Experimental Pathology, by Dr. Walter Sydney Lazarus-Barlow.
- Lea Bros. & Co.**, Philadelphia, 1904.
Ophthalmic Science and Practice (Third Edition), by Dr. Henry E. Juler.
Social Diseases and Marriage, by Dr. Prince A. Morrow.

Miscellaneous.

Transactions of the National Association of the U. S. Pensioning Examining Surgeons, Vol. 1, Washington, D. C.

Proceedings of the Orleans Parish Medical Society, of New Orleans, La., 1903.

Are we to Have a United Medical Profession, by Dr. Charles S. Mack.
Announcement of the Punton Sanitarium.

Medical and Surgical Report of St. Luke's Hospital.

Programme of the Meeting of the Executive Committee of the Commercial Law League of America.

Year Book Publishers, Chicago, 1903.

Practical Medicine Series, Eye, Ear, Nose and Throat, by Dr. Wood Andrews Head.

General Surgery, Vol. 2, by Dr. John B. Murphy.

Reprints.

Satisfactory Feeding in a Case of Cancer of the Stomach, by Dr. Edw. A. Stratton.

To the Medical Profession of the U. S. Collated from the Records of the Committee of Organization of the World's Congress of Medicine.

The Development of Obstetric Surgery, by Dr. James U. Barnhill.

Appendicitis, by Dr. J. J. Brownson.

Treatment of Cancer by Mercuric Cataphoresis, by Dr. Amedée Granger,

A New Electrical Medical Treatment of Uterine Fibroids, by Dr. Samuel H. Linn.

Destructive Sterilization by Cataphoresis of Cancer of the Uterine Cervix; The Treatment of Carcinoma of the Rectum by Mercuric Cataphoresis; The New Cataphoric Treatment of Cancer; The Destruction of Cancerous Growths and Sterilization of the Surrounding Tissues by Mercuric Cataphoresis; Report of a Case of Carcinoma of the Breast Treated by Massive Mercuric Cataphoresis; Cases of Carcinoma and Sarcoma Recently Treated by Electric Sterilization, by Dr. G. Betton Massey.

Suggestions for a Uniform Nomenclature of the Movements and Motor Anomalies of the Eye; The Value of the Screen Test as a Precise Means of Measuring Squint; Aplasia of the Papilla and Retinal Vessels with a Peculiar Anomaly at the Macula in Eyes Otherwise Normal; The Systematic Use of Cylinders in Making the Shadow Test, by Dr. Alexander Duane.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR JANUARY, 1904.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	7	2	9
Intermittent Fever (Malarial Cachexia)	2	2	4
Small Pox.....			
Measles.....	4	1	5
Scarlet Fever			
Whooping Cough.....	1	1	2
Diphtheria and Croup.....	4		4
Influenza	22	22	44
Cholera Nostras.....	1		1
Pyemia and Septicemia	2	2	4
Tuberculosis.....	61	44	105
Cancer.....	20	5	25
Rheumatism and Gout	1	2	3
Diabetes			
Alcoholism	2	1	3
Encephalitis and Meningitis.....	9	3	12
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	11	11	22
Paralysis	4	7	11
Convulsions of Infants	4	2	6
Other Diseases of Infancy	15	7	22
Tetanus	7	7	14
Other Nervous Diseases			
Heart Diseases.....	42	35	77
Bronchitis	8	1	9
Pneumonia and Broncho Pneumonia.....	70	37	127
Other Respiratory Diseases	6	1	7
Ulcer of Stomach.....			
Other Diseases of the Stomach	1	1	2
Diarrhea, Dysentery and Enteritis.....	13	2	15
Hernia, Intestinal Obstruction.....	1		1
Cirrhosis of Liver.....	4	1	5
Other Diseases of the Liver	2	1	3
Simple Peritonitis	2	1	3
Appendicitis		2	2
Bright's Disease	30	13	43
Other Genito-Urinary Diseases.....	3	4	7
Puerperal Diseases	10	3	13
Senile Debility.....	27	13	40
Suicide	2		2
Injuries.....	22	22	44
All Other Causes.....	28	9	37
TOTAL.....	448	285	733

Still-born Children—White, 22; colored, 10; total, 32.

Population of City (estimated)—White, 233,000; colored, 84,000; total, 217,000.

Death Rate per 1000 per annum for Month—White, 23.97; colored, 40.71; total, 27.74.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.13
 Mean temperature 51.
 Total precipitation 3.58 inches.
 Prevailing direction of wind, north.

New Orleans Medical and Surgical Journal.

VOL. LVI.

APRIL, 1904.

No. 10.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

Notes and Observations on Uncinariasis in Porto Rico.

By DR. BAILEY K. ASHFORD, Captain Assistant Surgeon, U. S. A. and DR. W. W. KING, Assistant Surgeon, P. H. and M. H. S.

(Concluded from March Number.)

THE IMPORTANCE OF UNCINARIA DUODENALE.

Let us pass over a very few of the comments made on this disease by foreign observers:

Sorsino says of the conditions in Egypt:

“Anchylostomata, filaria and bilharzia are veritable scourges to mankind, scourges of a kind that do not destroy at once like cholera or plague, but decimate slowly and deteriorate whole populations like malaria.”

Giles, English Army Surgeon in India, one of the greatest later day authorities on parasitic diseases of this nature, reports that the parasite is responsible for a formidable mortality and a great

amount of chronic sickness. He says, "A very short experience with a 'blacklisted' Assam tea garden would, I am sure, convince that anchylostomiasis with the aid of any other pathological condition is quite capable of acting as a plague to which experiences of beri-beri are as mere child's play."

Leichtenstern, the greatest German expert on the disease, but now a writer of the past decade, tells how bitterly he was persecuted for trying to drive it out of the brick fields of Cologne when the question was first broached.

Sandwith, who delivered the before cited address before the International Medical Congress in Rome in 1894 (Observations on 400 cases of Anchylostomiasis) states that he cured or greatly relieved 89.5% of his cases, that 2.5% were not relieved, and that 8% died, that their average stay in hospital was from 14 to 76 days, that the average number of days was 30 and that most left because they were clamoring to go to work, as they felt so much better.

Wucherer began the study of the disease in Brazil only a few years after Dubini discovered the parasite. Agnoli and a host of others attest to its power for evil. Agnoli says, "It is an exceedingly common disease in the valley of the Amazon and is the most frequent and deadly of the endemics."

Oswald Baker, a Col. Surgeon in the English Army in India, states that in jail in Calcutta many prisoners whose anemic condition was said to be due to a variety of vague causes, incident to prison life, such as, depression from confinement, loss of appetite, wet weather, malaria and scurvy, are all due to loss of blood from the anchylostoma duodenale. The reason for not finding ankylostomata in some autopsies in cases of fatal debility is that the worm quits the patient, as rats quit an empty house, when anemia becomes profound.

Nothnagel, one of Vienna's most noted pathologists and clinical professors, in lecturing before a class of students presented at clinic a man who had only extreme pallor to evidence his infirmity. He states that the man had that day been refused admittance to the country by the inspector of immigration by reason of the law in Austria that makes Anchylostomiasis quarantinable. He remarks that the inspector was quite right in sending this man away as he was dangerous to the people. He stated that the anemia in the great Saint Gothard tunnel epidemic was at first believed to

have been due to the hard life of the miners, until Perroncito and others convinced all Europe of the error and pointed out its infectious nature.

Hayman Thornhill, M. B., Senior Medical Officer English Army in Ceylon, strongly advises governmental interference to stop the inroads of the disease which he declares is one far more serious than cholera. He says that diagnosis of malaria, debility, dropsy, malarial cachexia and diarrhea should often be "Anchylostomiasis." He had 783 cases from tea estates.

Surgeon Major Dobson, English Army, states that 75% of the inhabitants of 35 districts in India are infected.

A Brazilian physician states that the Rio Janeiro physicians had to fight hard against theories of insufficient and improper food as a cause of the disease.

Haldane and Boycott recently have discovered a severe epidemic of anemia in a Cornish mine in England which the government believed due to poor ventilation. In fact had they not unearthed the real cause in time thousands of dollars would have been uselessly spent in improving the ventilation of these mines.

French mines, especially in Auzin, have been greatly affected but money and patience have eradicated the disease.

Dr. E. E. Candle, Assam Co. Medical Officer, India, says: "My experience shows that in-nearly all cases of anemia treated, expulsion of the anchylostomata had taken place and that when the cases are taken in time the results are promising. He further states that many cases of obscure fever and anemia that have resisted all other treatment yield to thymol."

The Journal of American Medical Ass'n., which has waged a continuous war on the disease, says, on May 24, 1903 ("Ankylostomiasis in Cuba and Mexico"): "Physicians in these two countries are awakening to the realization of the fact that the numerous cases of progressive anemia observed there and hitherto assumed to be malarial cachexia are in reality in many instances ankylostomiasis.

On May 9, 1903, the same *Journal* notes "A conference to discuss the means of preventing the spread of miner's disease (uncinariasis) was held recently at Berlin, summoned by the Government."

On July 11, 1903, the *Journal* states that "it is reported from

Bochum that a new source of infection has been discovered there. According to the latest figures fully 25,000 cases are raging in the Westphalia mines.

On Sept. 26, 1903, the *Journal* says: "Belgium is affected and energetic measures have been taken to stamp out the infection which was first imported into Germany and Belgium by the workers returning from the construction of the Saint Gothard tunnel in Switzerland. The Belgian government announced that it did not have the means to undertake prophylactic measures and the city council of Liege, the point most affected, assumed the task in 1899. It appropriated \$4,000.00 a year for examinations and small pensions to be given to affected persons hoping in this way to induce miners to declare the presence of the parasite more promptly. In addition to this a special dispensary and hospital was established last year for those affected. This not only serves to keep the patients under surveillance during treatment but is valuable as a means of isolating them and sterilizing the dejecta which otherwise would be a menace to others. The course at the hospital is also a training in hygienic and prophylactic measures to that the discharged patient is able to warn and instruct his comrades. The latest report from Bochum, in Germany states that 50,000 of the 250,000 miners there are affected with disease.

Charles Wardell Stiles, Biologist U. S. Marine Hospital Service, says: "Malaria is admittedly one of the most important diseases when viewed from an economic standpoint. In general uncinariasis is, in the South, fully as important as malaria and in some respects it is of even greater importance.

"Take a given farming area in the sand districts with an infection of uncinariasis and assume that 100 people are not doing the work of 80 to 90 average hands. Thus there is a distinct loss of 10 to 20% in the wages and a corresponding loss in the crop return. In some places I should estimate the loss at even a higher percentage, say an average of 25%, while in several families I have examined I should say that uncinariasis is reducing the laboring capacity, hence the productiveness of the family, to as low as 30 to 40%, thus entailing a loss of from 60 to 70 per cent. Nor are the losses in wages and in the laboring capacity and the decrease of productiveness of the family, hence of the farm and finally of the country and state, the only economic considerations involved. Cases are not unknown when families have sold, moved or destroyed the homes, or were about to do so because of the belief that it might be due to the locality in which they lived.

“Again it is almost a common experience to be told by the father of a family that he spends for medicine all he earns in hope of ridding his children of this malady. Add to this the physicians’ bills, the loss by death and general expenses, etc., and it is seen that this infection is keeping more than one family in absolute poverty.

“Nor should we forget that uncinariasis has its important bearing upon the mental as well as on the physical and financial development of the poorer white people. As already stated children infected with this malady are often underdeveloped mentally; frequently they have a reputation in the schools, in the neighborhood and in their family of being “stupid” or “dull” or “backward” in their studies, etc. It has already been mentioned that children suffering with this disease are frequently kept home from school because of their tendency to become edematous when they sit still for any length of time. When we now recall that these conditions coincide especially with the educational period, it should not seem strange that uncinariasis has a marked influence upon the general intellectual condition of the districts in which it occurs.

“Considering the subject in the light of all I saw on the trip and taking what I believed to be a conservative view of the subject, I find it exceedingly difficult to escape the conclusion that in uncinariasis caused by *Uncinaria Americana* we have a pathologic basis as one of the most important factors in the inferior mental, physical and financial condition of the poorer classes of the white population of the rural sand and piney wood districts which I visited. This sounds like an extreme statement but it is based upon extreme facts.”

Stiles further states that the condition which should be attributed to light infections of uncinariasis is usually attributed in the South to malaria or diarrhea; medium cases to malaria combined with improper diet or insufficient nourishment and severe cases to malarial cachexia, dirt-eating, rosin chewing, heart disease, dropsy, general debility, pernicious anemia, etc.

This biologist’s work has verily created a sensation in the Southern States. Every day brings one or two reports corroborating Dr. Stiles’ views and lively interest is being taken in prophylactic measures. I have yet to hear one word of dissent from any of the doctors in this region.

Now as to Porto Rico. It would be an idle waste of time to go over the distress caused by the disease here.

I only wish to pay a tribute of respect to one of our institutions

on this island. I mean the Superior Board of Health whose good work is maintained at great personal inconvenience.

Let us see what they have done. In the report of the Superior Board of Health for the period to October 30, 1900, we find in explanation of the horrible death rate here pictured before you this statement:

“The poverty of the population with the resultant lack of nutrition is probably in itself the causes of a small per cent of those deaths, but doubtless this is, in the great majority of cases, merely contributed to a disease—Anchylostomiasis.”

This Board issued a pamphlet on the subject in 1900.

In commenting on this the *Journal American Medical Ass'n.*, March 3, 1900, says:

“We have received through the courtesy of the Surgeon General of the U. S. Army a copy of the Circular No. 5 of the Superior Board of Health.

“The circular gives precise directions to the Porto Rican physicians for the detection of the worm, with illustrations. Parenthetically it may be remarked that the translation into Spanish directs that 10 to 30 grams of thymol be given which is a typographical error of some importance. This circular will undoubtedly be productive of good results.”

In the 1st Annual Report of the Civil Governor of Porto Rico we find the Superior Board of Health still adhering to its first conceptions.

“The present diseases of Porto Rico are anemia, tuberculosis, dysentery and malaria: the first named being truly named the scourge of Porto Rico. Much of this is a parasitic disease caused by the presence in enormous numbers of a minute intestinal worm and its prevalence is explained by the facility with which the ova of the worm can obtain entrance into the body in consequence of the filthy conditions of the houses and the foul nature of the water supply in most of the country districts.”

It would be difficult to lay too great a burden of responsibility on the shoulders of this little worm here in Porto Rico. Its onward march is slow, steady and stealthy. So steady does it come that a disease as terrible in its effects as many a newspaper heralded epidemic like cholera, is permitted to ravage this country at will, the people lulling themselves to sleep with the explanation that

no poorly fed country can fail to have anemia. This one fatuous saying is responsible for most of the deaths in Porto Rico from anemia.

The host of *uncinaria duodenale* is not capable of violent exercise. Such laborers tire easily and planters here will confess that a large percentage of their help is in poor physical condition. By contrast look at the Porto Rican soldier. Here no anemia case goes untreated. True, many of them are city or town men and of better home surrounding's than the lowly poor. I believe labor would not only increase in physical worth but mentally also. *Uncinaria* as we have shown has a benumbing influence on the intellect. It is desirable that we appreciate the nature of our island anemias and to this end we invite the attention of this convention to a study of the disease.

SYMPTOMATOLOGY—Whereas, in all other articles that I have written or taken part in writing, I have thought it necessary to debate at length on the symptoms, here in your presence it strikes me as unnecessary in the highest degree. I will, however, touch upon a few points and leave the subject, already well known by your every day experience.

In my mind there is acute *uncinariasis* from a sudden invasion of large numbers of the worms and a chronic *uncinariasis* whose date of infection is not fixed, not possible to fix, as it occurs from time to time through a long period of years.

Acute *uncinariasis* is the form in which pain in the epigastric region with subsequent pallor and final secondary signs bring the patient to the verge of the grave in a surprisingly short time. Such a case occurred in my experience while stationed at Fort Slocum, New York. A stone's throw away was Glen Island, a New York pleasure resort. Here it has been the custom for some years to exhibit the industries and customs of various regions of the earth and here repaired in the summer of 1900 a colony of 20 Porto Rico's country people to make hats, coffee, etc. In this company was a child of about 10 years who arrived ruddy and well in New York, but, who in a few weeks developed colicky pains in the abdomen followed by a profound anemia which from the debility imposed on the heart, the resulting edema and muscular weakness bid fair to result fatally.

The poor mother heard that there was a doctor at the Fort who

spoke Spanish and she asked me to see the child, to whom, she said, a New Rochelle physician had been giving large quantities of quinin and iron. I looked up the doctor and went with him to see the case. We found the boy nearly dead, with a pulsating precordial region, pulsating veins of neck and arms, dyspnea, horrible to witness, deadly pallor, and general and severe edema more marked in legs. There was no diarrhea nor had there been, but there was epigastric pain and tenderness. The appetite was large. There was dilatation of the heart with *bruit de diable* in the jugulars and he complained of great "*fatigo del pecho con dolor.*" He was densely stupid and seemed to take no interest in anything. Throngs of curious people had gazed on this wretched specimen and I heard almost all who were at the time spectators of our visit say "how deadly pale-yellow, are they generally that color?"

The mother said that for a month he had been steadily going down hill in spite of the bracing air, good healthy surroundings and fine hotel food with plenty of meat. We gave thymol after examining the stool and that boy in about a month was a surprise to me. When he left for Porto Rico he was fat, ruddy and well, without a sign of his former illness. These "*jibaros*" themselves remarked that there must be something wrong when what they had always understood before as causing the anemia, namely, continued heat, poor food and hardships, were not in evidence. This, gentlemen, was a case of acute uncinariasis. The boy must have got into a patch of thickly infected soil, loaded himself up with larvæ just before starting for New York.

Chronic Uncinariasis.—Now whether it is believed or not it is nevertheless a fact that uncinariasis is punctured at times throughout the attack by fever. It is a higher fever in the acute disease but from time to time it intervenes in the chronic form. The chief danger is to consider it malaria.

In whatsoever manner the infection is acquired, little by little the human host gradually loses strength and color. Fugitive pains flit over the epigastrium. The appetite is generally very large. He does not want meat and concentrated foods. He wants to fill up that stomach "*que le pica.*" No matter what the average layman may say in sympathy for the poor *jibaro* (and doctors who know them better pity them more) he does not care for a diet of cream, roast beef and other concentrated foods nearly so much as

for "*mafafo*," "*bacalao*," "*arroz*" and "*habituelas*." I contend that although he will eat with avidity almost anything he must have also "*algo que le llena*." It is a modified form of geography. Anyone who has been in attendance for any length of time at the municipal hospitals knows that this is true. He needs to fill his stomach fuller than we fill ours. It is bulk he wants. Now easily digested concentrated food would be better for him. His proteid ration is extracted, as we all know, at a greater expense to his gastric and intestinal digestive apparatus from vegetables and grains than it would be from meats. I have had them plead for "*un plato de mafafo*," etc., when I had seen the ample, excellent and nutritious hospital meal they had just eaten. I explain this phenomenon by the fact that there is a perverted appetite. That the stomach craves, from the irritation of these minute worms, perhaps, to be stuffed just as is seen in the universally well known sign of other intestinal worms. Of course, gastric dilatation is often the result and dependent on the irritating and difficultly digestive nature of the food, on its enormous bulk and its characteristic tendency to produce meteorism. The intestinal functions are labored and the bowel distended and often partially parietic for short periods. How much inflammation is caused by the biting and the rebiting of the mucous membrane of the intestine where these worms feed is not known, but in part, the worm causes a hyperplasia of connective tissue which obliterates normal secreting membrane. There is no doubt in my mind, however, that the stuffing of the bowels with enormous quantities of food with the results of this habit is a potent factor in keeping up and augmenting any direct inflammation caused by the little nematode. Vomiting is rare; we have found nausea frequent. Stomatitis is not very rare but is of a chronic desquamatory and not an active ulcerative type. Meteorism is common and can readily be explained. It will be confounded with ascites if care be not taken to percuss the abdomen. Lutz described a large variety of pains and tenderness in the abdomen to which I fail to attach any special importance. There may be constipation or diarrhea but the latter becomes often furious in the latter stages. Stiles notes blood as a symptom in the stools but frankly I can not consider it a constant symptom. To me it is a rarity. I have seen dark brown stools which contain remnants of blood, but any color may exist in the feces.

In general, intestinal and gastric signs are not much noted by the patient, and they have to be brought out by close questioning. I should say enormous appetite, craving for bulky foods, fugitive pains in the epigastrium, heartburn, eructations and meteorism were the chief digestive symptoms. All these symptoms may be overlooked or present in such an obscure form as not to be noticed.

The skin is of a dirty, pasty, grayish yellow in brunettes, more deady white in blondes. It is not waxy like that of renal disease nor of the transparent whiteness of tuberculosis. This pallor in the site we generally see it, combined with the peculiarly indifferent yet hopeless expression is a picture which impresses one, as the facies of typhoid, and is difficult to describe. I have seen this color, slightly developed, it is true, but there, and this expression in one whose hemoglobin was practically normal.

In many cases an itching pustular eruption is found on the legs reminding us of Loos' and Bentley's proofs of the ability of the worm to enter the system through mud stained legs. I have also proved it to myself. It would be of vast interest to find out how many anemic patients have had this eruption, a difficult proceeding as they may not remember so far back. Any one of these pustules may become a so-called anemic ulcer and care must be taken to exclude syphilis, etc.

The respiratory system is not generally affected except secondary to the heart when frequent bronchitis, bronchiectasis, emphysema and, at the last hypostatic congestion of the cases may occur.

The nervous system is profoundly affected. Most of these people are neurasthenic hypochondriacal or melancholic. There is, apart from this a greatly reduced power of cerebration. They become densely stupid. They cannot remember a message or a fact or a direction. They seem to be deaf, for they desire everything said to them to be repeated. They have no ambition, no initiative, no plans, no anything save a desire to live from hand to mouth. Now, no one can say a "*jibaro*" is naturally stupid. They are not, but when their system is overwhelmed by a toxemia which not alone is lethal for the brain, as I believe it to be, but deteriorates and destroys the oxygenating power of the blood, is it to be wondered that they are stupid? Who has not seen the plastered leaves on the temples and the tightly wrapped band about the head? This headache is one of the patient's most annoying symptoms. Neuralgias

are not uncommon. A curious and very suggestive symptom is paresthesia, formication, tingling sensations in the legs (what a *jibaro* expressed to me once as "*palpíteo en los dedos del pies*"), burning in the palms of the hands and soles of the feet, great susceptibility to extremes of heat and cold, hyperesthesia and anesthesia. Every now and then a cold wave passes over him. He describes it as "*un frío que me entra en la planta del pies y sube a la cabeza.*" This was unaccompanied by fever. As a rule in extreme cases the patellar tendon reflex is abnormal, most frequently being extinguished.

There is often diminished sexual power in the male, even to actual impotence, and amenorrhea in the female. One most prominent symptom is "*dolor en las rodillas.*"

A condition of apparent peripheral neuritis may develop which may resemble beri-beri. An Army Surgeon, D. McConathy, who lived in Porto Rico for some years and was then ordered to the Philippines, where he saw much beri-beri, noticed this resemblance and wrote an article on it.

Pregnancy is dangerous in advanced anemia as might well be expected, from the tendency to abort. I will not go into detail on the dangers of the physical degeneration of future generations because it is self evident, if conditions proceed without calling a halt. Surgical operations are likewise dangerous. I consider it extremely hazardous and generally unwarranted to subject a patient with less than 50% hemoglobin to a surgical operation of the major class.

As to the eyes; haziness of vision and sudden clouding of sight is very common. Hemorrhagic spots have been found in the retina.

The urine is very light in color, generally of low specific gravity and has seldom any albumin. Occasionally albuminaria is present and we had a case in Ponce of this kind in which the condition disappeared after thymol had expelled the worms.

Circulatory System.—Here symptomatology runs riot. I say in all seriousness that I believe I have seen a more or less good imitation of almost every known disease of heart and vessels in uncinariasis. After the pallor has existed for a while the heart, as in all profound anemias, begins to make its presence felt. The patient finds he loses breath easily; cannot endure long and fatigu-

ing work as he used to; has palpitations, dyspnea, pain in the chest, sometimes running down the arms; gets dizzy; has roaring in the ears; gets inattentive, loses interest in his future; has flashes of light in his eyes; is very sleepy or very sleepless; feels the throbbing of his heart and hears it when he lies down at night; and perhaps has an occasional fainting spell. Upon physical examination we find, on inspection, all the way from a pronounced apex beat to a bulging heaving precordium with pulsations visible in the epigastrium, supraclavicular, and infraclavicular spaces and in the vessels of the neck. Sometimes this infractive pulsation takes the appearance of aneurysm. The apex beat is often displaced. On palpation we confirm the signs obtained by inspection and even sometimes note a false thrill owing to the relaxed condition of the great vessels. On percussion we often find a dilated heart. On auscultation we get all kinds of murmurs. I have heard both soft and very hard sounds apparently involving any valve. Of course in so degenerated an organ as we find in the later stages the heart is really the site of organic lesions due to fatty degeneration. Only those who have had a very pronounced case of this sort to recover from apparently irremediable heart involvement can appreciate the wonderful effect of proper treatment.

These symptoms bring him to the doctor and what he most bitterly complains of when he gets there are "*tuki-tuki en el corazon*;" may be he says he has "*pipitacion del corazon*," "*fatiga del pecho*," "*viente con sangre*," "*mareo*," "*dolor de cabeza*," y "*desfallesimiento del cerebro*." These are his chief complaints. He gets so bad that he cannot get up a hill; cannot work or cannot even crawl to the place of his work. He squats perhaps before he gets through talking because he is so weak he cannot stand and pants as he tells his story, winding up with the polite little formula so usual in the country, "*y he venido a' vel si el doctor ne dé una medicina*." What, in the future, is the doctor going to do for his wretched victim of a curable and a preventable disease?

DIAGNOSIS.—The egg in the stools is the diagnostic proof. Now, as I say, this parasite produces eggs constantly found in the feces in infected persons. Three hundred female adults yield 1,000,000 eggs a day. They live high up in the jejunum and hence are well mixed with the feces. Hence a small bit of excrement half the size of a pea is pretty well loaded with them. The procedure of exam-

ining feces is only filthy when the examiner is filthy. It is only slow when the examiner is slow and it is the easiest kind of a diagnosis to make if a man has once seen the eggs. They can't be well confused with anything else so there is not much use in going into varieties where they are confounded with other structures or organisms.

A bit of feces is taken up on a glass rod and placed on a glass slide. A drop of water is added and the glass rod mixes the two to a very thin paste. A cover glass is applied and pressed down firmly to give a thin layer. This is placed under a 1-3 objective and in a moment one is seen. The diagnosis is made. The shell is very thin, the egg is transparent and clear, differing from most other varieties which are bile stained. In the interior vitellum balls of a grayish color are noted. There may be 2 to 4, 6 or 8 according to development. If the egg is old a living, squirming embryo is clearly seen within. This is the shortest, simplest, easiest microscopical process I know of except the recognition of circulating filarial embryo in the blood. If we go into the various differential diagnoses we have a world of words to no special purpose.

Suffice it to say that if a patient is exposed to contamination from the soil of Porto Rico, if he is anemic and if this anemia is chronic and resists other treatment, thymol, properly given, will cure in the vast majority of cases and we have the most agreeable proof of the correctness of our suspicions. Two points in this paper are of prime importance to the physician without the advantage afforded by the microscope:

1. Treat all *jibaros* with severe anemia as though it came from uncinariasis; your marvellous results will repay your apparent temerity.

2. This treatment has been unduly denounced as dangerous. It is safe. I cannot see why, if Dr. King and I have given it in 4 grams doses more than a thousand times without one fatal result and only once with a bad symptom due to disobedience of our orders. The physicians of Tricoche Hospital have given it as routine treatment for all anemia ever since. I cannot see, I repeat, why this drug should be considered dangerous.

ETIOLOGY.—Any occupation that exposes the individual to an intimate relation with infected soil will sooner or later, in the majority of cases, produce infection.

Of all industries bringing about infection, agriculture is the most important and mining the most talked of. The Saint Gothard tunnel epidemic caused Bozzolo to look for the remedy. Ever since that time nine out of ten noted epidemics occurred in mines, tunnels or brick works. These epidemics, some still raging, as in the Dolcoath mines in England, the mines of Belgium and Germany, on which prophylactic measures are gradually proving successful, and mines in France, have furnished the most exact and scientific research.

We have followed the parasite to its natural medium, a damp, shaded, warm and rich soil. Where can such perfect conditions be found as are found in coffee estates? General Davis, Ex-Governor General of this Island, places the laboring classes at about 600,000 souls. Of these 62.8% are engaged in agriculture. Of the cultivated land here 41% is utilized for coffee. The method of planting coffee is especially dangerous and the culture medium is perfect.

Brazil is heavily scourged by uncinariasis, as well as Porto Rico, and here coffee is a leading industry. Work in sugar estates is next in danger to coffee. A most eminently favorable spot for infection is the land surrounding small huts shaded by a banana patch. Here children roll and play in mud and persons and animals track it into the house. In addition, seldom is a privy found and men and women and children foul the soil in the immediate vicinity only to be infected by it later on. It must be remembered that a bit of soil the size of a pea has been found to contain fifty rhabdites. Now many, the majority, eat with dirty hands, and it is easy to follow up the theory of infection by the mouth by every day observation. Besides Leichtenstern and others have experimentally proven it.

Here let us remark that, of late, what at first sight is the most fanciful theory of infection that has ever been broached, has been accepted by most observers as a fact. Loos and Bentley in separate articles announced that the infected larvæ enter the skin of the feet and legs when soiled by infected mud and finally wind up in the lumen of the bowel. A pustular eruption is formed and is known as *pani-ghao* or "ground itch." Many authors declare that this is the most common mode of infection. Hence an unshod peon should stand a small chance of escaping.

Other means of exposure are found in eating raw vegetables, in

using mud soiled utensils and clothing, in drinking muddy water, living in houses not floored, etc.

Water, however, is to me a rare vehicle for the worm, as before mentioned.

The whole matter is referable to soiling of the native earth.

As to a refutation of some current ideas concerning the nature of the anemia generally found in Porto Rico:

It is a well-known and sad trait of human nature that the simplest truths are often endowed by us with obscure and elaborate arguments. I respectfully beg the gentlemen of this association to aid in the exposition of the truth whenever they hear the climate, the food, the hardships, the starvation of Porto Rico, blamed for what is nothing more or less than an infection.

I will not take time to consider the subject of climate. No one here seriously intends to blame the climate of this little Eden. The moisture and gentle warmth furnishes two elements for the growth of uncinariæ, but climate alone, that is heat or cold, will not produce a whole race of horribly anemic beings. If so, why it is not so where it is as hot or hotter than in Porto Rico? The climate of Porto Rico is ideal and the island will be sought out as a great sanitarium some day by the people of other parts.

We have had, Dr. King and myself together, some 400 to 500 cases of anemia treated by thymol and from a large number of blood examinations we had but two or three showing malarial organisms. There is no doubt malaria exists here and in some places more than in others, but it is not nearly so prevalent as it is on the banks of the Potomac at Washington; yet people there are not pale, especially. I might add that the estivo-autumnal form is not so uncommon and that the combined ratio of sick soldiers in hospital from malaria to those sick from other diseases is far less here than in Washington, and always has been. Why place the curse of notoriety for malaria on this island when it does not deserve it and when filarial infection will often explain the phenomenon of fever?

Is it that the exposure to the elements would cause anemia? They have told me that the *jibaro* goes into the rain, is often wet, lives in a miserable hut, undergoes great hardships. I reply that in New York and in more northern cities the tenement house, the horrid poverty, the extremes of cold, the extremes of heat,

the struggles for bread, the hopelessness, the mental strain, the dust by day, the noise by night, the lack of sun, the over-burdened and poisoned atmosphere make up, I do not say a sadder picture, for I would prefer the gentlemen of this society to personally familiarize themselves with these conditions and finish the comparison.

Is it the lack of food or the poor quality of the food, lack of meat, etc? Poor diet they have here, but not poorer than the Central African who lives almost exclusively on plantains and may be said to rarely if ever have meat. They are said to be among the most magnificent specimens of manhood extant.

I do not intend to speak lightly of the trials and wretchedness of the miserable poor of this island. Their food is often inadequate, monotonous and often scarce and their life hard. How much more so when they have a silent army of small enemies sucking away their life blood and poisoning a poorly nourished body?

A beggar came to me in Ponce in January, 1902, begging for food. He said he was starving, too ill to work, and relied alone on the charitable people of that city to give him a chance mouthful.

I gave him thymol. He crawled away, the saddest, most miserable specimen I have ever seen. He returned in February. I hardly recognized him. He was another man. He told me he had found work and wanted some more medicine. I gave it to him. He is now ruddy, powerful, muscular and working as a longshoreman in the *Plava* of Ponce.

In short, I suggest to anyone, who is not entirely clear on the subject of the etiology of this anemia and believes that other things would explain the anemia better, that he carefully, conscientiously and scientifically take 50 cases of anemia with uncinariæ in the stools from among the wretched poor, let him treat those cases with thymol in full doses every week or ten days to 3, 4 or 5 doses, interspersed with iron tonics, and after six months let us have a meeting of this association to compare notes. I make the offer to make the microscopical diagnoses, if you wish; for first of all we must convince ourselves before the public will be convinced.

PATHOLOGY.—Mode of production of the anemia.

There are three circumstances to be considered:

1. The direct abstraction of blood by the parasite.

2. The chronic inflammation of the bowels resulting from the wounds inflicted on the mucous membrane.

3. The specific hemolytic toxin.

Undoubtedly all three contribute to the production of the resulting grave anemia, but a glance at the size of this worm would convince anyone that blood-sucking is not responsible for the great degree of blood deterioration.

When chronic indigestion is a prominent symptom it might certainly be of greatest importance in the production of anemia but it does not always show itself to be a prominent symptom.

I believe the anemia caused by *Uncinaria Americana* is due to a specific hemolytic toxin elaborated by the parasite; for the following reasons are expressed in a recent article on the subject:

1. There are nervous symptoms such as neuralgic pains, hypochondriasis, melancholia, stupidity, tingling in the feet, etc., etc., all out of proportion to the existent anemia.

2. There is a remarkable eosinophilia not caused by anemia from sudden loss of blood, nephritis and other causes of anemia and existent in certain other worm diseases, especially trichinosis, filaria, etc., many of these other worms belong to the family of nematodes.

3. The rapid change for the better in the nervous symptoms after treatment which has not yet affected the anemia.

4. The relative immunity from the effects of a large infection which some, notably negroes, enjoy, and the great susceptibility of some who harbor few worms, too few to cause much loss of blood.

In fact Tussana has noted this toxin in the urine of a patient. He injected it into hares and produced a severe anemia in which the first effect was a dissolution of the hemoglobin. He cured his patient and after this frequent injection of the evaporated urine produced no effect on these animals.

5. The hemoglobin falls before the blood count and is always relatively much lower. These views as stated by Dr. Walter King, U. S. Marine Hospital Service, and myself, are shared by many other workers on the subject.

I have chiefly found the worms in the jejunum although they are found in limited numbers in the duodenum and even in the stomach, but they are not found in the lower part of the ileum nor in the

colon. Sandwith found 575 bites in the intestine and only 250 uncinariæ.

The spleen and liver are not affected typically when anemia is profound, however, the liver is found to be of a brilliant yellowish green with fatty degeneration.

The kidneys are rarely affected and when lesions are found they are of the chronic interstitial variety due to the elimination of the toxin.

When the heart becomes dilated, however, and murmurs are prominent, then we may expect any phenomenon common to a non-compensating heart, such as interstitial inflammation of organs, hypostatic congestion of the lungs, ascites, edema of lower extremities, cerebral anemia, etc., etc. These are the results of a long continued specific anemia which might many years before have been cured and which neglected have left our patient beyond human aid. These are the cases reported as hepatitis, cancer of the stomach, achylia, neurasthenia, tuberculosis, heart disease, etc., etc., through the whole gamut of diseases found in the health reports of the island. I particularly desire to emphasize one point here: a profound infection of uncinaria will produce often a severe anemia. That anemia will result in dilatation of the heart and and insufficient nutrition of the tissues, especially the vital organs. One of two things will happen, either the patient's dilated heart will become a chronically damaged organ with all its attendant disastrous consequences to other organs, too well known to recount here, or in the malnourished tissues is found a place of least resistance for well known infectious micro-organisms, chief of which is the *bacillus tuberculosis*, given there is exposure to such an infecting agent.

Mistakes of diagnosis in a death certificate here arise and many a human being on this island has fallen an early victim to a disease which never would have gained ground in an otherwise healthy body. I only have to point to the frightful death rate following the hurricane of August 10, 1899, 12,000 or more, to indicate the small resistance to a reduced diet and to hardships the wretched *jibaro* enjoys.

In an examination of the blood two important facts should be determined:

1. The percentage of hemoglobin.

2. The degree of eosinophiles.

The first is an indication of the extent of damage the toxin is exercising over the hemoglobin. While generally here from 25 to 50%, many cases present but 15, 10 and even 7% of hemoglobin.

Gentlemen, have you ever thought how you would feel with 7% of hemoglobin in your blood? Has any one the heart to curse indolence, stupidity and lack of moral force in a man who has but 7% of the normal amount of hemoglobin? The number of red blood corpuscles is interesting and scientific but of no special consequence in forming an idea of the gravity of condition resulting from infection, as blood corpuscles die rapidly when hemoglobin is lacking.

If they are counted we may expect to find from 1,000 to 3,000,000 usually, and in bad cases 500,000 to 1,000,000 per cubic millimeter.

The differential count of white blood corpuscles is another matter. Here we have a clue to the resisting power of our patients in the eosinophilia present. The normal relation of the four chief varieties of white corpuscles, as we know, is:

Polymorphonuclears, 60 to 72%; small lymphocytes, 20 to 30%; large lymphocytes, 6 to 8%; Eosinophiles, $\frac{1}{4}$ to 1% to 4%.

In this disease this relation is altered. The eosinophiles rise, the polymorphonuclear fall; I have seen 66% of eosinophiles. A long discussion of this interesting subject I have no time nor space to make but the following conclusions may be drawn from the percentage of eosinophilia (as found in our article in *American Medicine*, September 5 and 12, 1903):

1. Uncinariasis is a disease which causes at some period of its course an eosinophilia.

2. In those who have suffered but a short time with the disease or whose blood regeneration is still active a high eosinophilia is to be expected.

3. In chronic uncinariasis or in those who have been for a long time subject to a profound anemia the eosinophilia is more apt to be low than high. This is caused by an exhausted or malnourished condition of the bone marrow.

4. After treatment in chronic cases and those in the later stages of the disease a rise may be expected and is of good prognostic

import. It may be due to a more active regeneration in the bone marrow.

5. When there is, however, a fall of eosinophiles with lack of improvement in physical signs, death may often be the result. Care must be taken to distinguish this from the final fall in eosinophiles which marks the establishment of the blood equilibrium and the return to health.

6. In general a slow rise of eosinophiles marks a long convalescence, this is often seen in the old, whose recuperative powers are enfeebled.

7. There is a final return to normal after the disease is cured.

In addition to these deductions it may be stated that in common with other secondary anemia there is polychromatophilia, poikilocytosis and a low color index. There are nomoblasts and megaloblasts but unlike pernicious anemia the former predominate. An important fact, in defending which, we oppose many European writers, chief of whom are Manson, Boycott and Haldane, is that there is no leucocytosis in this disease. It may be coincident and dependent upon other conditions but it is not a symptom.

Lutz's resumé of the pathology is as follows:

1. Local intestinal lesions, as ecchymoses, mucous and submucous hemorrhages, even to loss of large amounts of blood.
2. Chronic catarrh of the intestines.
3. Impoverishment of blood with cardiac dilation.
4. Atrophy and degeneration of various organs, showing general malnutrition.

TREATMENT.—The treatment may be considered as first directed against the parasite, then against the results its presence has caused. It is rapidly successful if secondary laming of vital organs has not reached too high a grade or if age and debility do not forbid prompt recuperation. In general terms, old men and those whose bloodmaking organs are more or less exhausted by great chronicity of the disease, as well as those who possess a necessarily serious complication or intercurrent disease, improve slowly if they improve at all. But it only needs a trial to convince that the majority of seemingly grave prognoses recover entirely to surprise the doctor, cheat the great reaper and awake admiration in the wondering community. The cures I have seen in the bad stages of uncinariasis have led me to consider no case hopeless, no matter how old,

infirm or exhausted the patient. Now, gentlemen, this class of cases means blind faith, much patience, much perseverance and constant vigilance for a period measured by months, not by weeks. But those who, although very pallid, very weak and those whose heart and nervous system show that the disease has taken a good hold on them, if not exhausted, are readily, easily and we may say, marvelously cured.

There are two possible vermifuges:

1. Male fern.
2. Thymol.

Male fern is said to be less poisonous but is more expensive than thymol, fully as disagreeable, notoriously difficult to obtain without adulteration and has not anywhere near the efficiency of thymol. It has been, I may say, almost unanimously relegated by the best authorities to a second place.

Thymol is said to be a little dangerous but is the very best and, to us, and the majority of observers, it is the one and only drug worth even considering. Many times male fern has been given until further and repeated large doses have failed to expel the parasites and several hundred have afterward appeared on the exhibition of one large dose of thymol.

As to its danger; the idea is to give it in large doses at one or two sudden strokes on an emptied stomach and bowel and then as rapidly purge it out of the intestinal canal to avoid its absorption. Undoubtedly the absorption of 4 grams or of 2 grams even of pure thymol would cause as much trouble; so would the absorption of any powerful vermicide or vermifuge. But we don't intend to have it absorbed, so we empty the bowel the day before by some well-known purge. I use Epsom salts because it is cheap. Lutz says calomel is better because he desires to clear away the mucus from the duodenum and jejunum so as to enable the thymol to act on an unprotected uncinaria. Give, then, from 30 to 60 grams of magnesia sulphate the afternoon before and milk diet, or caldo, or nothing thereafter. The bowels having moved well before morning, I order my patient to remain in bed without "*desayuno*" and at 7 A. M. administer 2 grams of thymol powdered, in 6 cachets. I repeat this dose at 8 A. M. and at 11 or 12 I give another dose of Epsom salts. Now, while the thymol is in that intestine remember to avoid all solvents of the drug. We don't

want it absorbed, we want it there for the benefit of our little enemies, the uncinariæ. They will get it all then. Solvents are chloroform, glycerin, oils, fats, ether, alcohol, etc. I also instruct my patient to strictly observe the dorsal decubitus. He does not always do this at first, but he resumes it if he tries to get up, for a dizziness sometimes comes over him with a most unpleasant weakness that acts as its own warning. It is common to have a little burning in the pit of the stomach. Generally no very unpleasant signs whatsoever develop. I have only seen them appear once and then it was because a hard headed patient insisted on working with 4 grams of thymol inside of him. I give Epsom salts as the second purge because it is the physiological antidote and effectually stops absorption, because it is rapid, because it is easy to take and because it causes little pain. It may be added also that at 12 o'clock noon all worms are affected that are going to be, also it is well to remember one other fact; thymol in powder either kills or stuns the parasite. If it is merely stunned it will catch the intestine lower down when it is awakened unless it is promptly swept out by a purge. Never get yourself persuaded to give thymol in solution, or suspension, or powder. It will often be vomited, some may enter the larynx and dangerous and even fatal laryngeal spasms may follow. With the powder encased in a cachet, or capsule, this is not probable. After one o'clock let your patient take an easily digested meal and later his usual dinner. If the subject is a child or a feeble old man or has a very bad case of heart dilatation, content yourself with giving one gram of thymol to relieve him of at least a large number of his parasites. Or you may give him iron, quinin and strychnin, or spartein or digitalis for a few days before to build him up before his ordeal. Often thymol treatment will increase the edema at first but this is followed by betterment. Repeat this treatment every 8 or 10 days until ova cease to appear in the stools or, if the hemoglobin ceases to rise, longer. Where you are obliged to depend alone on clinical signs use it four or five times and then every month till the patient is cured. The usual number of times it is necessary to give it is three. It is futile to discuss other drugs. These are so far proven and re-proven to be useless by such a mass of testimony as to be convincing. As to regeneration treatment; iron in some form is very needful to a rapid result. It is not necessary generally but it is

of great service in rehabilitating the hemoglobin. I have had many patients who never had it and have gone from a severe grade of anemia to perfect health without it and casually I might mention some of my worst cases. Now it is not necessary to look up some rare and unusual form of iron that promises much and oftener fails to keep its promise. Of all preparations of iron the sulphate, the tincture of the chloride and the carbonate are the best. They should always be neutralized and should not be irritating. I like Blaud's pills best (*Pil. ferri carbonatis*). Give two or three times daily each pill to contain 5 grains and each to be fresh. Let me emphasize the fact that fresh pills alone are effective. For dispensary practice Lutz gives 5 to 10 drops of liq. ferri chloridi neutralized with sodi bicarbonate and well diluted three times a day.

Treat complications as they arise. As an excellent circulatory stimulant in addition to digitalis, strychnin and nitro-glycerin, I want to add a word of encomium concerning adrenalin chlorid, 1 to 1000. From 5 to 25 drops three times daily will do wonders to reduce edema, tone up the pulse and compress the lymphatics and strengthen the heart.

Arsenic is chiefly good as a stimulant to blood-making organs but was to me very disappointing. Ferrocodile, arsycodile, arrhenal, cacodylate of soda, and this group of remedies, were faithfully tried and gave very disappointing results. I studied this effect on the blood by weekly hemoglobin findings and found them very unsatisfactory.

Hydrotherapy, good concentrated food, rich in proteids and fats, regular habits and personal hygiene are only possible in a well-equipped hospital but are of great value.

This treatment will do wonders. Sandwith, of his 400 cases only had one return to him for treatment and all my cases cured have remained so till now (one year), strong and working.

Sandwith had 42 cured by the first dose; 58 cured by the second dose; 42 cured by the third dose; 25 cured by the fourth dose; 9 cured by the fifth dose; 4 cured by the sixth dose; 2 cured by the seventh dose; 2 cured by the eighth dose.

At the time of our writing our article, published in *American Medicine* on Sept. 5 and 12, 1903, we stated of the 100 cases recounted: "Of the patients we treated, 58 have been completely

cured, by which we mean absence of ova and disappearance of symptoms; 25 were improved, of whom 13 are still in hospital progressing favorably and will be cured unless unforeseen accidents occur; 5 are not improved, but 3 of them have tuberculosis; 6 died of anemia, 3 of tuberculosis, and 1 of pernicious malaria when nearly well of anemia."

We must now modify this statement to conform to subsequent events after that article went to press: 85 are entirely cured, one of whom we included formerly as about to die; 11 died, four from intercurrent disease, as follows: 3 died of tuberculosis; 1 died of pernicious malaria; 7 died of uncinariasis anemia.

4 are discharged cured of anemia but destined to die of tuberculosis. A percentage therefore of 89 cured, 7 dead of uncinariasis and 4 dead of inter-current diseases. Sandwith's cases are about the same.

PROPHYLAXIS.—This is a question which I would gladly discuss in detail, but time does not permit.

There are no authors on uncinariasis who do not enunciate the cardinal principle that feces must not be deposited on the field of labor where later men must work. Let us emphasize again the fact that the eggs need air to develop, moisture, shade. Confining the feces to a latrine would marvelously influence the disease in Porto Rico. The latrines, however poor, should be used. Many excellent plans of community latrines are extant and many right here may be tried, especially on estates of coffee and sugar.

A long exposure to the sun's rays during dry weather kills the larvæ. Cut down underbrush and at the end of the dry season grass may be fired, as even a transient passage of fire will heat the surface soil (and it is only this we wish to heat) to 140° F., a fatal temperature for larvæ.

Repeated ploughing of the land every fortnight; a large number of larvæ are suffocated when turned under the sod.

Treatment of as many cases as possible.

Treatment of all Government laborers.

Public dispensaries.

And many more.

People should be led, not forced, for we should turn our attention to one little fact: There are many popular ideas afloat that certain performances are dangerous, such as going out into the serene

without a hat, sleeping in an open room, etc. If these really unimportant cautions are common currency, who invented them? Where did they come from? The day that the majority of our people of the country here are persuaded that soiling the open ground is a great danger, not only on account of anemia but for many other reasons, death from anemia will diminish and finally disappear.

The Value of the Leucocyte Count as an Aid to Diagnosis and Prognosis in Appendicitis.*

J. B. GUTHRIE, M. D., New Orleans.

In considering the subject of a departure from the normal number of white blood corpuscles, it is of importance to determine first the normal relation that these bear in point of numbers to the volume of the blood. Various observers in different parts of the world have differed slightly as to the total number of leucocytes to be found. However, the average of the numbers determined by those who are competent to speak with authority is a little less than 7,500 per cubic millimeter. Departures from this occur as phenomena accompanying processes which are entirely physiological. Rieder estimates the average increase in the healthy individual during the process of digestion as 33%. Pathological proliferation of leucocytes is usually higher than this, or in most cases at least, double the normal number or 15,000 per cu.m.m. Rarely does the count of leucocytes show more than 50,000. So we find in diseases where we find an increase at all, that the range of variation is between these two limits, excepting in such remarkable conditions as the leukemias present.

The degree of leucocytic increase in pathological processes is conceded by all to be directly dependent upon two factors, the degree of the infection and the resisting power of the individual. The following deductions can be made from the general proposition: The greatest increase is observed where an intense infection occurs in an individual whose resisting powers are most vigorous. The same degree of infection in one whose resisting powers are weak produces no leucocytosis. As Cabot very aptly states, leucocytosis occurs only when the battle (using Metchnikoff's metaphor) be-

*Read before the Louisiana State Medical Society, April, 1903.

tween the leucocytes and the invading organisms is somewhere nearly equal.

If the army of defense is utterly overwhelmed or, if on the other hand, the invading force is completely outclassed, no leucocytosis occurs.

The above applies to all leucocytic increase that comes from bacterial infection, and appendicitis falls under this category.

It is not within the province of this discussion to take up the various theories as to the actual cause of the phenomenon which we call leucocytosis. It is sufficient to know that such a process does manifest itself invariably under certain conditions, and it is this invariability that makes the subject worthy of consideration in its bearing upon appendicitis.

In order to be worthy of the attention of the surgeon or the general practitioner, the count of the leucocytes must be capable of furnishing some information which can not be obtained in any other way as to the behavior of this most superfluous little organ, whose peculiarities are many. That it does this has been proven by Cabot in a series of 72 cases in the Massachusetts General Hospital. His conclusions have been amply confirmed by Wright and Joy who have analysed a series of 124 cases which they themselves had under treatment in Calumet, Michigan. Here we have a total of 196 cases in which the conclusions were identical. In this disease, there is in many instances, opportunity for verifying clinical conclusions without recourse to post mortem examination. Quite a large proportion of cases of appendicitis are operative, and it is then easy to determine whether or not the lesions are as suspected. In Wright and Joy's series of 124 cases, all but 14 were operated upon and the operation in every case, showed that the procedure was justified by existing lesions. In the 14 cases in which no operation was done, the subsequent course of the disease showed that the decision not to operate based on the findings in the leucocyte count was a wise one.

The leucocyte count is of more value in appendicitis as an aid to prognosis than as a diagnostic help; and to give a true indication of the course of the disease, it must be made repeatedly. The variations are of much more significance than the degree of leucocytosis

determined by the first count, although this alone is often a most reliable indication.

Leucocytosis occurs but seldom in cases of catarrhal appendicitis, but once in Cabot's series and then the count was 14,000. When the count is low, say 8,000 to 12,000, one of three conditions exists, either the case is a mild one or a very severe one—a distinction which is manifest to the one in charge of the case, or an abscess is walled off and is for the time being external to the body. The bursting of an appendical abscess into the peritoneal cavity is, as in the case of perforation occurring in typhoid fever, followed by an immediate rise or an immediate fall in the number of leucocytes,—again dependent upon resistance of the patient.

An increasing leucocytosis indicates invariably a progressive process. The leucocytic increase in many cases was the only indication of this fact. At times this increase has been accompanied by an amelioration of the symptoms, and yet operation undertaken upon the indication of the blood count deposited lesions which could never have gone on to a spontaneous cure without surgical intervention.

A decreasing count in general is an indication of subsidence of the disease. We have in this, especially when the first count is not high, that is not over 16,000, a most reliable assurance that the case is progressing favorably, and that if there is any consideration that prevents an immediate operative interference, this can be safely postponed. In this connection, it might be of interest to recall the fact that the mortality after operations for appendicitis is considerably greater where operation is done during the attack than when the operation is done at a time when the patient has recuperated. Even with this fact in mind, the surgeon hesitates to postpone operation because of the very great uncertainty of the prognosis, based entirely upon clinical symptoms. With a leucocyte count made at intervals (sometimes as often as every 4 to 8 hours), and showing a low or a moderate count in the beginning with a gradual diminution, there need be no hesitation in postponing operation, if there is any good reason for so doing. In the 196 cases alluded to above, the count was followed in not a single case was the indication of the leucocyte count found fallacious.

If we can learn from this means when operation can be postponed with safety to the patient, it gives us an equally positive indication

of when operation is imperative. In the cases with high counts, this indication must be observed. In the cases where the count is moderate, if stationary or if increasing, likewise is operation the only safe course. When the count is low and associated with severe symptoms, immediate operation is all the more imperative.

It is not to be inferred from the above that a total disregard of the symptoms and an entire dependence upon the leucocyte count is justifiable in forming an opinion as to the prognosis of a case of appendicitis. This is no exception to the rule that the findings of the microscope must always be considered with the clinical manifestations if their fullest value is to be realized. It is in comparatively few pathological conditions that the diagnosis comes, ready made from the laboratory.

Taken in conjunction with the symptoms, the count of leucocytes furnishes, at times, valuable data upon which to base a diagnosis. Often the question arises whether the departure from normal conditions is due to appendicitis or to some of the pelvic disorders in the case of female patients. If we take cognizance of the fact that the only diseases of this class which produce a leucocytosis are, abscess (including pus tube, etc.), Septicemia, and hemorrhage (menorrhagia, metorrhagia, ruptured tubal pregnancy), we can with a leucocyte count exclude a large number of such disorders whose symptoms often simulate appendicitis.

Treves reported a series of cases of typhoid fever in which the symptoms were most suggestive of appendicitis. In this disease when uncomplicated, no proliferation of leucocytes occurs.

Impaction of the feces in cecum is a condition, of which there are several cases recorded, which could not be differentiated from appendiceal abscess, and in which the diagnosis was established by the leucocyte count. An absence of leucocyte increase in a condition like this, which has persisted for some time and in which there is fever, tenderness, rigidity of abdominal wall, and tumor, if no leucocytosis is found, we can be certain that no abscess exists—provided of course, the symptoms are not such as to indicate that the absence of leucocytosis is not due to an overwhelming of the patient by the infection. This latter condition would likewise show no leucocytosis.

Floating kidney is also a condition in which the tumor might

suggest appendicitis. Here a leucocytosis would be present if an appendiceal inflammation had progressed so far as to produce a tumor. In floating kidney, there is no leucocytosis.

The blood count made at frequent intervals is an aid both to the surgeon and to the medical practitioner. It enables the medical man to differentiate between cases which can be safely treated along medical lines and cases which must be referred to the surgeon.

It is not claimed that the microscope can supplant clinical observations as an indication to operation or as a diagnostic measure; but proof is abundant that by this means much of the uncertainty in regard to the course of the disease can be cleared up, and that when the deductions are properly made, operation can be insisted upon or postponed without trusting to luck. Without it there is only one course open, that is to operate in every case as soon as the diagnosis is made. This is the only alternative if we go no farther than clinical symptoms, and the surgeon wishes to be sure that he has not trusted to chance. Many will not concur in this view, as to the necessity of operation; but the weight of evidence is against an expectant policy unless there is positive evidence that this is safe. The only evidence that can be positive is that furnished by leucocyte count frequently repeated.

The count of leucocytes presents no great difficulties as to technique. It can be done by one who has the necessary apparatus in a short while. Any one who has a fair microscope and one of the hemocytometers, of which there are several excellent ones on the market, after a little practice, can make the counts for himself.

A Suggestion in Operations for Hypospadias and a Method to Prevent the Closure of the Nares in Rhinoplasty.*

By E. DENEGRÉ MARTIN, M. D., New Orleans.

I. HYPOSPADIAS.

Only surgeons who have had any experience in operating for congenital deformities of the penis can fully appreciate the difficulties to be encountered, notwithstanding the numerous methods suggested, none of which seem to be ideal. After repeated failures in attempting to carry out some of the existing methods, I finally

* Read before Southern Gynecological and Surgical Association, 1903.

decided upon a plan which proved most satisfactory, and which I believe likely to give the best results in similar conditions, as illustrated by the following case:

C. H., white male, aged 12, was referred to me for operation. On examination I found a condition of complete hypospadias with undescended testicles. The urethral opening appeared in the perineum about one inch above the anus and continued, as a narrow band of mucous membrane the entire length of the penis to the site of the normal meatus as represented in Fig. 1.

After making several attempts to restore the urethra first by the method of Rochet, of making a tube from the skin of the scrotum and carrying it up under the skin between the corpora; and, second, by the suggestion of Novê-Josserand, of making a tube with a Thiersch graft, sutured over a catheter and run under the skin, and meeting with only partial success by the first method, I decided to divide the corpora and cover the surface with a single Thiersch graft, this forming, when brought back into normal position, a deep groove, covered with healthy skin and continuous with the existing urethra. The edges were split, brought in apposition and so sutured as to form the new canal and the skin was then brought over these flaps and held in apposition with mattress sutures, reinforcing the new canal, as represented by the cuts.

The technic of this operation is as follows: First divide the corpora, at the same time dissecting out the remnants of the unformed urethra and removing the bands which usually exist and cause a curvature of the penis (see Fig. 1). The division of the



I

corpora should be almost through the entire thickness, so as to insure a deep groove and a roomy urethra. Dissect out the meatus of the existing urethra and carry it to the bottom of the groove, so as to make it parallel with the new urethra; flare out the corpora and cover the raw surface with a Thiersch graft; cover with gauze; strap to the pubis with adhesive strips. In ten days or two weeks the graft will have taken, then the second step of the operation can be performed.

Second: Split the edges of the skin at the junction of the grafted surface and dissect back a quarter of an inch on each side; place a catheter at the bottom of the groove, insert into the urethra and suture the margins of the grafted surface over the catheter with catgut, to form the new urethra. Reinforce this with the skin flaps and hold in apposition with silk worm sutures run through at least a quarter of an inch from the edge of the flap and held in position with shot, care being taken not to make tension on these, but simply to approximate the opposing flaps. The operation can be completed by a continuous or a few interrupted sutures, as the case may require. Remove the catheter.

Perineal drainage is absolutely necessary through every step of the operation.

The advantages of this method are, that it is less complicated, assures a healthy urethra, of which fact you can be absolutely certain before closing, and undoubtedly requires fewer operations to complete the work, with much less risk of failure from gangrene of the flaps or rupture of the suture.

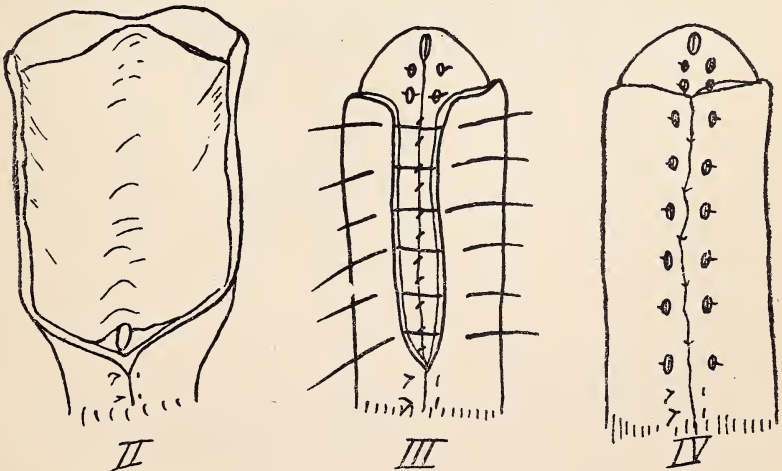


Figure No. 2 represents the appearance of the penis after grafting. Figure No. 3 the first step in formation of the new urethra. Figure No. 4 the approximation of the skin flaps.

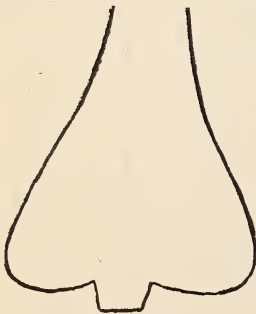
My experience is that the fewer sutures used the better and they should never be drawn tight, as there is more liability of cutting through the tissue when the penis becomes congested, a condition that is certain to follow and always fraught with the greatest danger to the operation.

II. RHINOPLASTY.

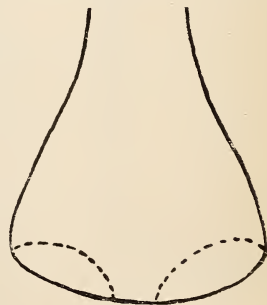
In all plastic operations, nothing is of greater advantage to the surgeon than a personal experience with many cases. In rhinoplasty, American surgeons have little experience, except in cases resulting from syphilis or lupus, which render the technic much more difficult on account of the enormous amount of scar tissue resulting from the ravages of the disease. In India, where mutilation is resorted to as a means of revenge, the deformity is common enough. Until recently the technic was imperfect, but since the advent of aseptic surgery it has been greatly improved. Metallic supports have been used, but only in exceptional cases have these proven beneficial and osteoplastic operations have been only partially satisfactory.

One of the following methods are usually employed: The Italian, by which a flap from the arm is attached to the stump. The French or German method, in which flaps are taken from the cheek, and the Indian method, by which a flap is taken from the forehead.

This last is the method usually adopted. A flap is cut from the forehead with its pedicle near the supraorbital notch. The base of



Shape of flap in Indian method.



Shape of flap suggested. Dotted lines show where flap should be thinned and inverted. When drawn back and held by mattress sutures, the flaps pull up the centre and form columns.

the flap is so shaped as to form a columnar. It is then twisted upon its pedicle, brought over the nasal orifices and held in position by interrupted sutures and the projection in the centre at the base attached to form the columnar. This leaves a margin of raw surface along the border of the newly formed nares, which naturally contracts as the healing process progresses and is always a source of great annoyance to the surgeon and patient as well.

To overcome this difficulty, I would suggest the following plan:

First, it is essential that the entire surface to be grafted should be healed, that the nasal orifices be sufficiently patulous to allow of the free passage of air; if contracted, they should be enlarged and grafted with Thiersch grafts, and this should also be done when the scar tissue appears unhealthy. Being thus properly prepared, a flap is cut from the forehead obliquely from right to left, with its pedicle near the supra-orbital notch. Instead of so shaping it to form the columnar, the base is cut broader and longer than in the method usually suggested. After removing the flap, it is thinned on either side of the columnar and inverted, thus forming the new columnar and at the same time grafting the orifices of the nares with normal skin flaps, which will overcome the danger of contraction and the obliteration of the nasal orifices. The rest of the technic is the same as suggested by others. The method is quite simple and has proven most satisfactory in two cases.

The first case in which I adopted this plan was a case in which the entire nose had been destroyed by syphilis. The operation was performed before the lesions were entirely healed. The result was that contraction continued after the new nose was made and almost obliterated the orifice. This condition could have been obviated by grafting and the ultimate results would have been far more satisfactory.

The second case was that of a colored man who had lost his nose and both eyes from a gunshot injury. Though I did not see the patient after operating, I was told the case had done admirably.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. M. J. MAGRUDER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING OF FEBRUARY 13, 1904.

DR. MAGRUDER in the Chair.

DR. NELKEN read a paper entitled:

A Plea for the Meatus.

(Abstract.)

Among medical men the opinion seems to be general that meotomy is inconsequential and can be done without hesitation whenever it seems to be indicated. The advice is always given that in operating the opening should be made somewhat larger than ultimately desired, as the tendency on healing is toward contraction. So well is this result followed that sometimes the result of the operation is actually an artificial hypospadias. An abnormally small meatus (under 18 Fr.) or one in which pathological narrowing exists, may justify surgical interference. But the responsibility of a moderately contracted meatus in chronic gonorrhea is frequently exaggerated. A moderately contracted meatus would be one between 18 and 22 Fr. When the meatus will admit a 20 instrument there should rarely arise occasion for cutting it to facilitate either examination or treatment of the urethra. In the diagnosis of stricture, where the meatus will admit a 26 bulbous bougie, they are perfectly reliable. In exact work with a smaller opening, the Otis urethrometer is essential. In using the urethroscope, I have done very satisfactory work with as small a tube as a No. 20 Fr., using direct light. In the treatment of stricture, there can rarely arise occasion for division of the meatus. The urethral dilator of Oberlander will pass an 18 meatus. Superior to the Oberlander are the Kohlman and Powell dilators.

The objections to meatotomy may be summarized as follows: it unfavorably affects urination and ejaculation of semen. It greatly

increases the liability to urethral infection and is in itself sufficient explanation of the liability of some men to infection after every suspicious exposure.

DISCUSSION. DR. GESSNER, in speaking on the technic of the operation, urged the necessity of suturing the mucous membrane of the urethra to that of the glans, if it was desired to avoid a closure of the opening made.

DR. CHASSAIGNAC thought that in the main Dr. Nelken's point was one well taken, for in any operation so commonly performed there were certainly instances where it was abused. Though abused in many cases, it was not to be considered as never being indicated. A pathological narrowing of the meatus especially should be corrected; that of congenital origin, also, particularly if not yielding. The operation, though done less to-day than formerly, is too frequently done, as is the practice in Hot Springs to-day. Just as it is true that harm accrues from unnecessarily performing the operation, so is it true that ill effects follow when the operation is indicated and not done. He had observed cases of chronic discharge that failed to respond to treatment until a too narrow meatus had been slit. Some meati, though small, yet are very elastic and subject to dilatation, whereas, on the other hand, others of apparently larger size do not yield to dilatation. It is a difficult point to determine at exactly what point it becomes necessary to perform a meatotomy. This point will always vary with the individual observer. He thought it rarely necessary in cases that admitted the introduction of an Oberlander dilator (15 F.). It seemed to him that Dr. Nelken had taken rather too restrictive an attitude on the operation.

DR. PARHAM thought that the operation had clear indications. In regard to the cutting it should not be taken too radically. Strictures at the meatus should be cut, as strictures elsewhere. Sir Henry Thompson's dictum was: If you cut at all, cut all. Subsequent contractions followed meatotomy if proper precautions were not taken, and might prove more disastrous than the original condition.

DR. GESSNER asked had Dr. Parham seen any contraction follow in cases where the mucous membrane of the urethra had been sutured to that of the glans.

DR. PARHAM replied that he had not.

DR. NELKEN, in closing, said that he had tried to pass the Oberlander dilator through a meatus admitting a 16 Fr. instrument, with the result of tearing the mucous membrane. He had not found stitching necessary after meatotomy. A piece of oil-soaked cotton kept between the edges of the wound until healing took place was usually efficient.

DR. PARHAM read a paper entitled: *A Case of Intense Obstructive Jaundice Relieved Without Finding the Cause of the Jaundice.* (Unable to secure paper in time for publication.)

DISCUSSION. DR. CHASSAIGNAC said that theoretically an explanation of the cause of the relief obtained by the operation reduced itself into three facts: 1st, it had been clearly shown that the flow of bile had been obstructed prior to the operation; 2nd, it is known that the bands of adhesion were broken during the operation; 3rd, that shortly after the operation bile had been present and, in his opinion, it was the breaking up of these adhesions, thereby removing the obstruction that relieved the condition.

DR. PARHAM wished to state that it was a point somewhat in doubt as to the bile appearing shortly after the operation, the observation having been made by an attendant.

DR. STORCK mentioned that he had frequently noticed a pulse of from 40 to 60 in cases of toxemia from the absorption of bile. Max Stern cites that Kehr had noticed in his cases of gall stone disease operated upon that 66% showed involvement of the pancreas.

DR. J. F. OECHSNER was interested in the case reported by the essayist, first, because he was a witness to the operation and he was not able to determine what had become of the gall bladder; and second, because he had recently a case under observation of a somewhat similar character as the one recorded. The case was that of a young woman who two years ago was seized with what appeared an attack of acute gastritis, following a hearty meal. When he saw her she had vomited the entire stomach contents, followed by streaks of blood from the violent efforts at vomiting; the patient was in a state of collapse. She was stimulated hypodermically and recovered from the acute attack, but complained for some days afterwards of pain in the epigastric and right hypochondriac region. A second similar attack followed in a few months and this was

attended with pain in the right hypochondriac region, accompanied by some jaundice. During September, 1903, about two weeks after delivery, she was again seized with an attack of colic. Operation was urged after subsidence of this, but patient feared an operation, preferring rather to suffer with these repeated attacks. On December 23, 1903, at 9 P. M., the doctor saw her in another attack. Save for the pain, her general condition appeared good. She died suddenly the next morning and sometime previous to death complained to her mother that her liver felt as though it had burst; evidently death was due to shock, attendant upon a ruptured gall bladder. No doubt the case had been one of ulcerative cholecystitis, in which death might have been averted by timely surgical interference. He regretted that a post-mortem could not be held. It is in this section of the country still a mooted question as to whether this class of cases were within the province of surgery or that of internal medicine. In the Northwest the internist acknowledges them to belong to the surgeon. He thought that, as a rule, medical men as a whole treated obscure abdominal pain too lightly, giving their patients sedatives, etc., without making a conscientious effort to clear up the hidden cause.

DR. CHAVIGNY had seen a case when a student in the Charity Hospital that had suffered from pain in the right kidney for two years. It was thought that there were stones in the right kidney. An operation was performed, but no trouble in the kidney proper was found, all adhesions were broken up, the wound suppurred for three months until final recovery. To-day the case is well, is free from any further pain and it seems that the breaking up of the adhesions was the only way to account for the relief obtained in the case.

DR. CLARK related a case of intense pain in the region of the gall bladder, for which an exploratory operation had been performed by Dr. Cocram. Careful exploration and manipulation of the gall bile passages was made, without finding sufficient cause for the trouble. The gall bladder was incised and a long pair of forceps introduced into the bladder down into the duct without finding any obstruction. Cholecystotomy was performed, and the woman made a happy recovery and was cured. He thought that very probably that some adhesions or bands had been broken up

without his being aware of its presence that accounted for the relief of the patient.

DR. MCGUIRE related a case that he had witnessed at the Sanitarium in a patient of Dr. R. Matas, who was profoundly jaundiced for two years. An exploratory operation was performed, nothing of consequence found. Recovered from the operation and in three weeks the jaundice had disappeared.

DR. LEBEUF wished to take issue as an internist to the remarks made by Dr. Oechsner as to the position of the surgeon and the internist to the class of cases under discussion. He strongly advocated the conservative method of treating these cases. He had recently had three cases which had had several attacks, but with the old treatment of free purgation and much oil, they had been apparently relieved. He had one case in 17 years in which it became necessary to operate. In more than 20 cases he had lost none.

DR. A. PETTIT related the case of a young colored woman who had repeated attacks of what he conceived to be gall stone colic; these attacks were ushered in by severe rigors followed by high fever and attended by a very pronounced jaundice, as indicated by eyes and urine. During the interim of these attacks she enjoyed very good health. Medical treatment proving of no avail, he advised her to seek surgical relief, which she declined to do. Some 18 months or 2 years afterwards he met the girl, who stated that she continued to have these attacks from time to time. The doctor said he thought it too soon to conclude that Dr. Parham's case was cured.

DR. STORCK wished to agree with the remarks made by Dr. LeBeuf. He thought that only five per cent. of all cases of gall stone sought medical advice. In his practice he used a modified Carlsbad treatment with great relief.

DR. CHAVIGNY said that at the recent meeting of the Southern Gynecological Society he heard Drs. Richardson and Mayo say that they are operating more than ever in this class of cases and that many cases of chronic indigestion and dyspepsia were being cleared up by finding gall stones present.

DR. NELKEN said that in line with some of the remarks that had been made advocating operation, he recalled the story lately going the rounds of the medical press of a distinguished English surgeon who had established an international reputation as an operator for gall stones. He advocated operation in every case. One morning

his disciples were shocked to learn that the surgeon himself had developed gall stones and had left at once for Carlsbad.

DR. EUSTIS stated that the literature showed the presence of quite a number of cases of pancreatitis especially in the Eastern clinics, but that he had not seen any reported from the South. This he believed due to lack of accurate diagnosis. He urged as a routine practice to have the stools examined for the presence or absence of fat, the absorption of which was a valuable guide as to the presence or absence of the juices of the pancreas.

DR. J. F. OECHSNER said that he was glad to have provoked some remarks from the internists in the discussion of gall bladder disease, it seeming to him a most vital point for consideration. He thought that Dr. LeBeuf had been very fortunate in his series of cases, but that it could not be accepted as a rule for such results to be obtained. He thought that if these cases of gall bladder trouble were operated on soon after the initial attack, much difficulty would be avoided that necessarily would be encountered when an operation is performed after repeated attacks. He thought that the situation would resolve itself into that occupied by appendicitis to-day.

DR. PARHAM, in closing the discussion, said that all admitted that the tearing up of adhesions frequently gave relief, but in this case he was not entirely satisfied even that the gall bladder had been identified. He did not claim any skill in the operating, except for stopping when he did. He was in grave doubt as to the correctness of bile being found in the vomit and since the jaundice was not relieved before three weeks had transpired, he was not inclined to believe that the mere tearing up of adhesions had been of itself responsible for the disappearance of the symptoms. It seemed to him that through the manipulation the pancreas had been so affected as to favor its regaining the normal state. When the gall stones were referred to the surgeon early the mortality was less than 5%, being much higher in complicated cases, which were found in patients having had several attacks. The argument in favor of early operation was founded on the same ground as that for appendicitis. He agreed with D. Pettit that his case had not been relieved of its symptoms long enough to be reported as cured. As to adhesions he had seen Dr. Murphy perform an exploratory operation the fourteenth time on the same man. Nitrogen gas was

used by Dr. Murphy in the last operation for the purpose of distending the spaces between the intestines, so as to avoid subsequent adhesions. He thought Dr. Eustis perfectly correct in insisting upon the frequent examination of the stools for fat in arriving at a diagnosis of pancreatitis.

MEETING OF FEBRUARY 27 1904.

DR. MAGRUDER, PRESIDENT, in the Chair.

DR. GORDON KING read a paper entitled

The Treatment of Hay Fever by Dunbar's Antitoxin.

(Abstract.)

DR. KING reported very favorable results in a series of cases treated late in the autumnal hay fever season of last year. Of six cases five were of the autumnal type and one of the hyperesthetic rhinitis or irregular type. The latter case was the only one indifferently influenced by the antitoxin, the rest being either quickly relieved or markedly improved by a few applications. In one in which asthma was associated with the hay fever symptoms, complete relief was obtained after one application. While still somewhat skeptical of the true value of the antitoxin as a curative agent in all types of cases, the author is most favorably impressed with the antitoxin in-so-far as his experience justifies an opinion and bespeaks great advance in the near future in the elucidation of that very vexing question, the etiology and successful treatment of hay fever.

DR. H. J. DUPUY read a paper entitled

Dunbar's Serum in the Treatment of Hay Fever.

(Abstract.)

DR. DUPUY opened the subject by remarking that at least one of the causes of this disease had been isolated and was now attacked by the potent energies of an antitoxin. Dunbar's experiments marked a distinct advance, and from further clinical verification, gave promise of a specific treatment when pollen proved to be the external exciting cause. We are now in possession of a list of the toxic and non-toxic varieties of pollen.

The pollen theory is not exclusive. Dunbar's discovery does not

disturb the triad of etiological factors, namely: (1) A neurotic predisposition; (2) A local anomaly in upper air passages; (3) An external exciting case.

Appropriate local and general treatment would still have to be addressed to such conditions. It is proven that the toxins of pollen are not identical. Here was the desideratum, to get a specific antagonist for each particular pollen toxin. Only then can we give the specific antitoxic serum for the vernal, summer, and autumnal varieties of hay fever.

DR. DUPUY also reported cases which, on the whole, confirmed the findings of Dunbar.

DR. JOACHIM read a paper entitled

Personal Observation in Dr. Dunbar's Laboratory.

(Abstract.)

DR. JOACHIM said that while in Dr. Dunbar's laboratory he went over the entire work done by the doctor in his hay fever investigations and, as far as possible, repeated the experiments on which Dr. Dunbar built up his conclusions. In addition to the typical reactions of rye toxin on the conjunctiva of persons subject to hay fever, observations were made of reactions of solidago or golden rod toxin. On some persons on which rye toxin acted, golden rod toxin was inert, while on others on whom golden rod toxin produced reaction, rye toxin proved non-irritating. Some hay fever subjects react to both toxins. These could be controlled with antitoxin made from either toxin, but more certainly and with less antitoxin if the corresponding antitoxin was used. Emphasis was laid on the prophylactic use of the antitoxin. The excellent results achieved by the previous speakers would probably not be equalled in every future case, but the results so far achieved by the use of antitoxin in cases responding to the test of one or the other toxins, were far ahead of any other method in giving relief to hay fever sufferers. Of a cure, we have no right as yet to speak until an active immunizing agent is found. In this field, as well as in the scientific investigations of hay fever, Dr. Dunbar has done the foremost work, which takes a high place in scientific medicine.

DISCUSSION. DR. ASHER wished to know if the pathological condition produced by pollen differed in type according to the variety of pollen deposited.

DR. O'KELLEY said that last Summer, while Dr. Joachim was in Hamburg, he had caused antitoxin of rye to be sent. In every case where the rye pollen toxin was applied he had failed to get a reaction, but in several cases where the golden rod toxin had been applied he had obtained reaction, which was quickly neutralized by means of antitoxin. He related the case of a lady who had suffered from hay fever for a number of years, in whom the application of the golden rod pollen toxin produced an immediate reaction. Five minutes after the application of the antitoxin almost immediate relief was obtained and subsequent applications of the antitoxin gave almost complete relief of the hay fever. The rye pollen toxin produced no effect whatever in this case. Observations had been made on ten or twelve cases and of this number six or seven who had replied to inquiries, had reported exceedingly satisfactory results from the use of antitoxin.

DR. STORCK asked what other plants besides those belonging to the gramminaceous produced the hay fever symptoms. When there was no longer any fresh pollen in the atmosphere, he suggested the possibility that pollen might have been lodged in the dust of houses and when this dust was disturbed it might become a source of attacks of hay fever. How long does pollen retain its toxicity? He had recently seen the case of a lady who experienced symptoms of hay fever after dusting her home.

DR. KEITZ related the case of one of his medical confrères who experienced typical hay fever symptoms whenever he came anywhere near flaxseed.

DR. VAN WART asked if any observations had been made on the pollen of pine as to the possibility of its producing hay fever, stating that at certain seasons the ground was literally covered with this pollen.

DR. MCGEHEE felt grateful for the light that had been thrown on the complex problem of hay fever by the essayists, it seeming to him that a distinct step forward had been made. He thought the Society was to be congratulated in having with us one of its members who had had personal opportunity of seeing Dr. Dunbar's work. He thought that professional men were of a more neurotic type, their nervous systems more highly organized, and it being known that cases of neurotic temperament were more prone to hay

fever, he thought went towards explaining the reason why the professional men were more susceptible than others.

DR. KING said that susceptibility was a very interesting phase of hay fever, the psychological feature played an important part in some of the cases, citing a case reported by Dr. McKenzie of a lady who stated that whenever roses were in bloom or when she saw the rose, she would experience hay fever symptoms. Dr. McKenzie, thinking that it was based on imagination, showed her a perfect artificial rose, when she promptly experienced her usual manifestations of hay fever. Dr. Natier went so far as to claim that all cases of hay fever were founded on neurotic basis and treated them by rest treatment, hydrotherapy, etc., with most excellent results. Dr. King had no experience with the toxin, having only used the antitoxin.

DR. DUPUY stated that Dr. Storck's suggestion of dust containing pollen being lodged in rooms and later distributed and giving rise to hay fever attacks during winter, seemed plausible. In discussing the subject we should not forget the three essential factors in the production of this disease: (1) A neurotic predisposition; (2) local anomalies in upper air passages; (3) External exciting causes, such as pollen, dust, sun's rays, etc.

DR. JOACHIM thought Dr. King's case of the conductor of great interest. From the history and results of treatment, he did not seem to belong to the class of hay fever as they might now be understood by the differentiations with toxins. The toxins are somewhat related; the antitoxins are pronouncedly so. Rye antitoxin will control golden rod toxin, if used in large enough doses. In answer to Dr. Van Wart's question Dr. Joachim stated that pine pollen did not contain any substance poisonous to hay fever patients. Pollen other than of the gramminaceous were also productive of hay fever, such as solidago or golden rod, ragweed, etc. In reply to Dr. Storck, Dr. Joachim stated that pollen preserved its toxin in the dry state, and that attacks of hay fever could be produced in susceptible persons by the inhalation of such pollen at any time of the year. He referred to Dr. Blakley's case who suffered repeatedly from an attack of hay fever whenever a certain patient from the country called on him. Investigation proved that the peasant had not worn the particular suit of clothes except on his visits to the doctor since the preceding hay fever season, and that

the same hat had not been brushed. Toxic pollen irritated not only the nasal mucous membranes of susceptible persons, but all mucous membranes with which it came in contact and even the external skin. In reply to Dr. King, Dr. Joachim stated that Dr. Natier, of Paris, went too far if he attributed hay fever altogether to neurasthenia. No doubt it formed an important co-ordinate factor in its production. It is probable that some patients will get well by treatment directed to this condition alone, just as patients have gotten well by local treatment alone.

RELATION OF CASES.

DR. KEITZ related *a case of poisoning by copper.*

Miscellany.

THE MANAGEMENT OF PLAGUE EPIDEMICS AND THE MEANS OF PROPAGATION of plague are dealt with in a highly interesting manner by Dr. Ashburton Thompson in his report of the "Second outbreak of Plague at Sydney" in 1902 (*Government Report*).

In regard to the former, he has not altered the views expressed in his report of the first outbreak. The cases were treated in wards of the infectious diseases division of the Coast Hospital "where they were dealt with almost exactly as though they had been suffering from measles or from some other of the commoner infectious fevers; the only difference was that visitors, though discouraged, were more freely admitted than would have been the case had the disease been measles; in fact, no other special precaution was taken than that of rendering the wards rat proof; and the general economy of the hospital was disturbed only by the number of patients suffering from this one disease for whom accommodation had been found. Secondly, the sick alone were removed from their dwellings. The other members of the household to which they belonged were not interfered with. They were told that their premises were probably infected and were advised to withdraw from them until they had been disinfected, when the circumstances required this, but they were never compelled to

move, neither were they supervised except for a short time at the beginning of the epidemic. Pending completion of disinfection, entrance to the house where the patient had lain was forbidden to all but residents, but the latter were allowed to go in and out." Disinfection was finished within thirty-six hours of the patient's removal though in large buildings it was much longer. The public were excluded until such times as repairs necessary to exclude rats had been completed, in the case of hotels and theatres. Areas deemed infected were rapidly and thoroughly cleansed, but they were not closed during the operation. Dr. Thompson thinks that this method, so different from that ordinarily deemed necessary, is justified by the results. Whereas, in the epidemic of 1900 treated under the method of isolating cases and contacts in their houses there were 303 cases, with 103 deaths, (a mortality of 34%) at a cost of £176,000; in 1902 treated under more liberal conditions there were 139 cases with 39 deaths (a mortality of 28%) at a cost of £24,000.

The report contains a careful clinical study of the cases and the surroundings from which they came. The rats taken in infected houses were bacteriologically examined and their relation to the number of cases noted.

The animal parasites of the rat were examined and the work of Simond confirmed. This also agrees with the results of Raymond and Gautier and of Elkington. All of these observers have shown that the fleas of the rat become infected by biting infected rats, and are capable of infecting other animals when so infected. It has also been experimentally shown that all the species of fleas parasitic on the rat will bite man.

Dr. Thompson thinks that the suppression of plague and the prevention of plague epidemics rests not so much with the extermination of the rats, which is a useful supplementary measure, but in rendering dwellings rat proof. This is a measure that can be carried out at very little cost to the municipality.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Provision For Infectious Diseases in New Orleans.

New Orleans has a pest-house, conducted under the charge of a contractor and visaed by the City Board of Health. Here small pox cases are sent by the authorities, and this includes all kinds of cases and classes without adequate or any home provision. The institution is essentially primitive and, though better than formerly, owing to a thorough exploitation by the daily press a few years back, it yet lacks any quality which makes it creditable.

Every now and then there is some talk of improved conditions; but the lapse into apathetic indifference is still the rule.

New Orleans is making vast strides commercially; new banks are multiplying; money is filling the various coffers of public trust; but in these momentous questions of public health there is no progress.

Some day Charity Hospital may have an annex arranged for infectious diseases, but while we wait for this, something should be done now. There is no refuge for a peripatetic case of scarlet fever, measles, or diphtheria.

We have noticed the proposed erection of a hospital memorializing the late Dr. Palmer. New York has a Willard-Parker Hospital, known everywhere as the refuge for infectious diseases. What better institution could be projected in the name of so great a man than one which in the highest sense fulfils the requirements of the hour and at the same time spreads the gospel of Christian charity, now either refused elsewhere or in particular cases handed out by the rule of contract?

So many purposes could and would be fulfilled by an institution adequately arranged and conducted for the care of infectious diseases.

Aside from the purely humanitarian element, there would be the education of the profession coming on, along the lines of the care and treatment of these cases, and, more, in the study of their prevention.

That there is an urgent need there can be no question. The ways and means and the direction are still afoot. Municipal provision has evidently spent its ambition; civic pride has not even been awakened and we must not wait too long for the State authorities to vote for a local institution. So it would seem that the broad charity of a philanthropic public must needs work for the common good, and this should begin soon; before the crying need finds more than a desideratum, but, more than this, before it may point to a criminal neglect.

Another Suggestion.

Should the idea of a hospital for infectious diseases not be favored by those interested in the Palmer Memorial movement, there is another possibility in case they determine that this memorial shall achieve a philanthropic purpose.

A home for incurables would do good both directly and indirectly; directly to the unfortunates for whom nothing can be done except to make the rest of their existence comfortable or bearable; indirectly by relieving the Charity Hospital of a number of such, thereby making room for other sufferers susceptible of cure.

The existing institution of such character has had to struggle to accomplish what it has; it has no accommodation for males and very little for females. No doubt the managers would be very glad to co-operate in the movement suggested or turn over their charge to a new institution. The "Palmer Home for Incurables" could fill a serious want in this community.

Diphtheria Antitoxin.

Not long ago a great hue and cry was raised in the daily papers because, it was said, the manufacturers of antitoxin had formed a combination and raised the price of their product. It was urged

that municipalities manufacture antitoxin in order to counteract the imposition.

It turned out that prices had not been increased, but that a more powerful antitoxin had been put on the market at a cost which was in reality less than that of the feebler, when the relative potency was taken into account.

In our opinion this is of double benefit, because it may easily lead to the habitual use of a larger dosage, a great advantage, we believe, for the more extensive and extended becomes the use of diphtheria antitoxin, the better it is demonstrated that large doses are the ones that do the work both curative and preventive.

There might be some arguments in favor of municipal manufactories, but it should never be that of economy, for the cost of equipment and maintenance of a proper establishment is very great; it must be kept in operation constantly while the need in any community is fortunately intermittent; on the other hand, private establishments with trade all over the country are likely to have some demand at one point or another most of the time.

The element of safety is well provided by the supervision of the Public Health and Marine Hospital Service, which, of course, could not be enforced over local or municipal concerns, but is legally carried out in regard to factories doing an interstate business.

Should there really be an attempt on the part of the manufacturers to elevate their prices unjustly by combination, the recent decision of the United States Supreme Court in the Northern Securities case would tend to show that the combination could be broken.

All of which would lead us to conclude that, when the necessity arises, we should use large doses of sufficiently potent antitoxin, manufactured by a responsible establishment under the supervision of the government and that we need scarcely fear an illegal combination to raise prices inordinately—the normal weight of the medical profession against it would be enough to defeat it.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

In charge of DR. F. W. PARHAM, assisted by DR. F. LARUE, New Orleans

THE SIGNIFICANCE OF ABDOMINAL PAIN OF INTESTINAL ORIGIN.
—Dr. F. H. Wiggin, in the *Medical News* of February 13, calls attention to the importance of a correct interpretation of the meaning of abdominal pain, when considered in connection with abnormal intestinal conditions. The advent of pain is often the first warning of the presence of a disease which if not at once relieved may soon terminate life. Failure to heed this warning and the delay caused by an effort to make an exact differential diagnosis explain the high mortality attending surgical operations for the relief of acute intestinal disorders. "Is it possible," as Maurice Richardson has asked, "to understand the cry which says, help the perforated stomach, the gangrenous appendix, the bleeding artery, the ruptured gall bladder and the obstructed intestines?" Abdominal pain is common to all serious disorders of the intestines. We must, therefore, in interpreting this symptom, consider other important factors.

Abdominal pain of a sharp and persistent character indicates involvement of peritoneum, whilst dull, aching pain points to the connective tissue; a cardialgia would limit the disease to the duodenum; tenesmus indicates limitation of the disease to the lower third of the intestinal tract; colicky pains several times a year in a person not habitually constipated, according to Hemmeter, would be suggestive of entero-stenosis.

He then proceeds to consider the diagnostic value of abdominal pain in conjunction with other subjective and objective signs in the various abdominal troubles having their seat in the intestinal canal, and concludes his article with a summing up of the value of pain located in the abdomen.

The chief value of pain is that it calls attention to the fact that

the patient is suffering from an abdominal disorder of greater or less severity, and to point out to the surgeon the locality of the trouble. The value of this symptom is so great that it is urgently necessary that the attending physician should be cautious about masking it with narcotic drugs until a study of the whole case may suggest the kind of surgical intervention.

Severe, sharp and persistent abdominal pain almost invariably means serious peritoneal involvement, and its sudden cessation, especially with rise of pulse rate and increased respiration, with or without a lowering of temperature, usually denotes gangrene and perforation. As Osler remarks: "The surgeon is often called too late, never too early."

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, assisted by DR. C. J. MILLER, New Orleans.

PELVIC EXUDATIONS.—The *Journal of Obs. and Gynec. of the British Empire*, Sept. 1903, contains an article by E. S. Carmichael in which he states that in 26 cases of parametritis 80 per cent were due to childbirth, and the remaining cases from surgical operation. The exudations were most common in the lateral parametria, more especially the left, but were liable to spread to, and involve the other parametria, showing no tendency to limitations along certain lines, as some anatomical observations might lead us to suppose. The majority of the cases when admitted to the hospital no longer suffered from fever, and that the presence or absence of this symptom is not a definite evidence of the appearance of suppuration. In leucocytosis there is a much more reliable means of diagnosing the presence of pus, and that where leucocytes steadily increase on repeated examination and especially when they reach the number of 2000 per *cm.* or over, surgical interference is justifiable. The majority of pelvic exudations cure by absorption rather than by suppuration. The most frequent cause of suppuration is the streptococcus pyogenes. The hot air treatment has proved a valuable addition to the therapeutics of this condition,

more especially in large or very chronic exudations, or in those patients where pain and discomfort result from cicatrices and thickenings in the parametria, the remains of former exudations. The chief contraindications to this treatment are fever, menstruation and heart disease.

EXPLORATORY HYSTEROTOMY.—Lejars (*Semaine Médicale*), comments on the necessity for direct inspection of the inner surface of the uterus in puzzling cases of hemorrhagic metritis. Discovery by this means of some unsuspected fibroma or polyp will clear up the diagnosis and make it possible to cure the morbid condition with a trifling operation. The cervix is drawn down as for a vaginal hysterectomy, and is incised on the anterior median line which avoids vessels and bleeding. The incision must be carried beyond the internal os so as to expose the interior of the uterus. Bastian, Schwartz, Gannat and Dartigues have all recently mentioned the great value of this simple measure in puzzling cases. The exploratory incision is always sutured at once.—*Jour. A. M. Assoc.*

Department of General Medicine.

In charge of DR. E. M. DUPAQUIER, New Orleans.

NOTES ON ENTERIC OR TYPHOID FEVER.—Our contemporary, the *Practitioner*, of London, gives a most interesting series of papers on Typhoid, in its special number for January, 1904.

Broadbent writes as an introduction a very brief review of the valuable papers presented, referring among others to Ker's contribution on the diagnosis which does not appear at all.

Sandwith, referring specially to typhoid in Egypt, informs us that the natives contract the fever only during their military service, and even then they are much less susceptible than European soldiers. Duncan tells us that in India the fever is common, but peculiar as to its symptoms. The classical temperature is practically never seen. He met it once only in a native from the mountains. Even in Europeans the temperature is irregular and symptoms in both natives and Europeans are different. In short, were it

not for the Widal test, typhoid, as formerly, would go unrecognized.

Cantile states that typhoid in China is also rare among the natives. In fact it is rare except in Europeans. The use of well cooked meat only and well boiled water, while the use of milk is a rare thing, may account for this apparent immunity among the natives. Chinese children are subject to the infection in orphan homes under European management. In coast towns (Shanghai, Hong Kong), typhoid is very frequent, but in the interior cities it is hardly seen even among Europeans. The fact that human fecal matter which is used as manure undergoes fermentation in cemented tanks before it is spread over and mixed with the soil explains why in China raw vegetables are not conveyors of typhoid, apparently.

Tooth presents some reflection on enteric fever infection in camps and gives as causes of spread of the fever among the soldiers the following: Drinking impure water, bathing, soil infection, sand storms, flies and overcrowding in the tents.

Newman, writing on the channels of typhoid infection in London, can not say that impure water is the main one, but thinks they are: personal contact, oysters and other shell fish which have been exposed to contamination with sewage.

Bolton, considering rigors in typhoid apart from any recognizable complication, reports a case in which the charts presented seem to show that this rare and severe symptom, though not unfavorable as to the prognosis, is brought about by an irritation of the intestine concurring with hemorrhage, mucous stools and administration of quinin, while it can be produced by irritation of the periphery (cool water-bed). Rigors are the indication that some toxic substance is traveling in the blood. Since rigors cannot well be avoided they must be treated on general principles, bearing in mind that they are not of such serious import as their appearance might lead one to think.

Wright, the authority on anti-typhoid inoculation, says the problem of conferring protection against typhoid by preventive inoculation is in reality a physiological problem. It is the problem as to how to call into action, and how to direct towards the end that we have in view, the physiological machinery which is concerned with immunization. The machine of immunization is a chemical

machinery, set in motion by the substance (vaccine) inoculated, and the result is the elaboration of a chemical product which makes its appearance in the blood of the inoculated animal, and which is called vaccinotropic element or antitrope. In each case the antitrope exerts a specific action upon the chemical substance used as a vaccine.

When the vaccine inoculated contains in addition to substances held in solution also formed elements, the product is a complicated mixture of antitropic elements. When an ordinary bacterial culture is inoculated there results a development of bacteriotropic elements. When a particular kind of formed elements is to be destroyed, a vaccine must be selected which will induce the elaboration of the antitropes required to destroy these formed elements. But the success of an inoculation process does not in any case depend only upon the selection of the appropriate vaccine, and strict asepsis. The operator must comprehend the physiology of immunization, and in particular, the general feature of the reaction of immunization. There succeeds in every case of inoculation of a vaccine negative phase characterized by an impoverishment of the blood in antitropes (the ebb). This is succeeded by a positive phase characterized by the flooding of the circulating blood with newly formed antitropes (the flow). Finally, there supervenes upon the positive phase which, like the negative, is essentially a transient phenomenon, a permanent high tide of antitropes. The law of the negative and positive phase rests on a basis of experimental facts.

Of great practical importance in connection with repeated inoculation is a knowledge of the cumulative effect produced of two or more successive inoculations. When in a case of two successive inoculations the second falls upon the positive phase of the former inoculation, or, as the case may be, on any period when the blood contains an increased quantity of antitropes, there is developed a cumulative high tide of immunity.

When, on the contrary, the second inoculation falls on the negative phase of the first the cumulation takes place in the direction of the negative phase. There is developed then a condition of cumulative susceptibility. When small doses are inoculated, doses insufficient to set up appreciable constitutional disturbance, the posi-

tive phase is already fully developed within twenty-four hours after the inoculation.

(To be continued.)

Department of Therapeutics.

In charge of DR. J. A. STORCK, New Orleans.

CEREVISINE.—Brewers' yeast is not an ideal pharmaceutical preparation *per se* and this is perhaps one of the chief reasons why it has not been recognized as it should be in America. Its frothy appearance and its odor (unless quite fresh) make it repulsive, and on the Continent, where it is prescribed most extensively, it is never used in this form, but as the pure cultivated cells of the *saccharomyces cerevisæ* in a desiccated form known as "Cerevisine." This represents in a concentrated form (which can be kept indefinitely) the ferments, nuclein, nucleinic acid and phagocytic action, which are essential to its therapeutic effects.

THE TOXIC ACTION OF UROTROPIN FOLLOWING A DOSE OF SEVEN AND ONE-HALF GRAINS.—In the *Medical News* of August 29, 1903, Coleman reports a case in which a small amount of urotropin acted in an untoward manner. He concludes:

1. That the administration of urotropin may be, but is only rarely, attended by toxic effects.
2. That toxic actions (especially strangury) occur with comparative frequency if the urotropin is not properly diluted.
3. That the development of toxic effects is not always, or necessarily, correlative with the size of the dose of urotropin.
4. That individuals vary greatly in their susceptibility to the action of urotropin.
5. That urotropin has been known to produce the following toxic effects:

(a) Minor toxic actions: (1) irritation of the stomach; (2) diarrhea and abdominal pain; (3) measles-like rash; (4) headache and ringing in the ears; (5) renal irritation, sometimes with albuminuria.

(b). Irritation of the bladder: (1) Strangury, the most common

of the toxic effects; (2) irritant action on raw surfaces in the urinary passages.

(c). Hematuria and hemoglobinuria: Eight positive cases of hematuria, following the administration of urotropin, and one doubtful case, have been reported. In one case hemoglobinuria was associated with the hematuria.

6. That the more important of these toxic actions have been produced by intravenous injections of formaldehyde.

7. That the toxic actions of urotropin are due either (1) to special susceptibility to the action of formaldehyde, or (2) to interference with the usual disposition of formaldehyde in the body, or (3) to the liberation of an unusual quantity of formaldehyde.

8. That the toxic effects of urotropin generally disappear completely within a few days after withdrawal of the drug.—*The Therapeutic Gazette*.

EWALD'S LAXATIVE POWDER.—

R. Pulv. rhubarb.....	parts	20
Sodii sulph. exsic.....	parts	10
Sodii bicarbonat.....	parts	5

Department of the Ear, Nose and Throat.

In charge of A. W. DEROALDES, M. D., and GORDON KING, M. D.,
New Orleans.

SALPINGOSCOPY.—Prof. Valentin, of Brul, has applied this name to a method he has devised for a more complete and minute examination of the eustachian orifices and other parts of the nasopharynx than has been possible heretofore. The method in question consists simply in the application of an instrument made on the plan of the cystoscope so shaped as to be introduced through the nasal cavities into the nasopharynx, and gives a magnified image of those parts of the nasal cavities and the cavum upon which the light of a miniature lamp contained in the instrument is thrown. In cases where nasal obstruction exists and in very small children

it is at times impossible to use the salpingoscope but when it can be used its advantage and usefulness are quite apparent.

COLLET—*Annales des Maladies de l'oreille, etc.*, Jan. 1904.

ARGYROL IN EAR, NOSE AND THROAT DISEASES.—E. B. Gleason, in *The Laryngoscope*, Oct. 1903, proclaims argyrol a most valuable adjunct to our list of local remedies; owing to its nonirritant and adherent properties and solubility in water it makes an excellent application to inflamed mucous membranes to modify perverted secretion. In 50% solution it has proven very effective in chronic indolent suppuration of the middle ear, and is especially recommended as a local application in 20% solution in cases of atrophic fetid rhinitis. In chronic pharyngitis and laryngitis and follicular tonsillitis it has obvious advantages over nitrate of silver and the other astringents usually employed.

The writer is prepared to confirm in great measure these claims as to its usefulness.

Miscellaneous.

RECENT WORK ON SERUM THERAPY WITH SPECIAL REFERENCE TO ANTISTREPTOCOCCIC SERUM IN SCARLET FEVER. Dr. James H. Bindley, of San Antonio, Texas, says of the subject of *Antistreptococcic Serum in Scarlet Fever*:

This serum dates back as far as March, 1895, when the news was spread far and wide that Dr. Alexander Marmorek, of the Pasteur Institute, Paris, had succeeded in preparing an effective serum, which would protect against the invasion of the streptococci which are found in complications accompanying scarlet fever. Marmorek not only reported laboratory experiments but clinical cases as well, thus arousing public interest so much that clinicians both in this country and in Europe began to employ this new product in their practice.

Marmorek reported that, while he had not succeeded in isolating the microorganism which was supposed to be the true etiologic factor in the causation of scarlet fever, there was, however, no longer any doubt as to the important role played by the association of the streptococci in this disease. He was well aware that in every case of scarlet fever, even of the mildest type, complications due to

streptococci always manifested themselves. He also observed that the mortality in epidemics of scarlet fever was very variable, that those cases that took on a mild form usually recovered without any serious complications following, but that those which showed symptoms of rapid intoxication as a general rule terminated fatally.

The serum employed was obtained by inoculating horses or asses with cultures of streptococci obtained from a case of severe angina complicating scarlet fever. This he injected into a number of patients having this disease, but the number was too limited to draw any definite conclusions as to its therapeutic value. However, its favorable action in preventing the complications following the disease indicated that the serum he had prepared rendered real service in the treatment of scarlet fever, although his observations had not been confirmed by subsequent observers.

The next account of the use of antistreptococcic serum in the treatment of scarlet fever came from Dr. Paul Moser, an assistant physician at St. Anne's Hospital for Children, in Vienna. He had given the serum, which Marmorek made, a thorough trial, but it did not appear to him to have had any material influence in very severe cases. He assumed that the streptococci so commonly associated with scarlet fever, especially in severe and fatal cases, differed sufficiently from other streptococci to warrant an attempt to prepare a special serum. This special serum, which he employed, was obtained by injecting horses with gradually increasing doses of living streptococci obtained from the heart blood of children who had died of scarlatina. The streptococci were grown in bouillon. After the horses were thoroughly immunized a serum was obtained which was used in the treatment of severe cases of scarlet fever. The amount employed varied from 30 to 180 *c. c.*, the larger dose being found preferable. He called attention to the fact that at St. Ann's Hospital they only received the more severe cases of the disease, and notwithstanding this fact the mortality under serum treatment was reduced to 8.99%, while the other hospitals during the same period, under ordinary treatment, showed a mortality of 13.09%. After the injection of large doses of the serum, a marked improvement was noted in the majority of cases. The exanthem did not come to full development, and the temperature and pulse showed much improvement.

As to the complications, Moser is inclined to believe that neph-

ritis and otitis media were not so frequent as they were in cases without the serum treatment. Some of the cases showed a shorter duration of the disease.

In his experiments he found streptococci in the heart's blood in 60 out of 90 cases, where patients had died of scarlet fever, and claims that the streptococci differ from those usually found elsewhere. He concludes that the negative experiments with Marmorek's serum are probably due to this fact.

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary, 163 University Place,
New Orleans.

NEXT MEETING, NEW ORLEANS, LA., MAY 10, 11, 12, 1904.

OFFICERS—President, Dr. J. M. Barrier, Delhi; 1st Vice President, Dr. L. G. LeBeuf, New Orleans; 2nd Vice President, Dr. F. J. Mayer, Scott; 3rd Vice President, Dr. Oscar Dowling, Shreveport; Secretary, Dr. Wm. M. Perkins, New Orleans, Treasurer, Dr. M. H. McGuire, New Orleans.

COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St Charles St., New Orleans; S. L. Williams, Sec'y, 5th Cong. Dist., Oak Ridge; J. F. Buquoi, 1st Cong. Dist., Point-a-la-Hache; F. R. Tolson, 3d Cong. Dist., Lafayette; N. K. Vance, 4th Cong. Dist., Shreveport; C. M. Sitman, 6th Cong. Dist., Greensburg; C. A. Gardiner, 7th Cong. Dist., Bristol.

Chairman Committee on Arrangement, Dr. L. G. LeBeuf, New Orleans, La.

As the time for our Annual Meeting draws near, it is gratifying to note the satisfactory condition of the Society, its phenomenal growth during the past year, and the encouraging prospects for a large and enthusiastic attendance. Such an awakening has heretofore been unknown to the medical profession of this State. Over thirty parishes, having completed all the details of organization, have been chartered as Component Societies, and over 280 new members have thereby been added to our rolls. A large majority of these Component Societies are active and enthusiastic, and a number of other parishes will receive charters between now and May 10. Although the meeting is at this writing nearly two months off, over 33 titles of papers have been handed to the Committee on Scientific Essays, and it is evident that the full program will be ready for the printer early in April. The belated writers this year will find themselves left off the program. Therefore, it behooves

members wishing to read papers to send the titles in at once to the Secretary. The Chairman of Committee on Arrangement is actively at work to secure the one fare round trip rate, and all other arrangements to make the meeting successful in every particular are being pushed. An effort is being made to arrange for a satisfactory exhibit from leading manufacturers, publishers, etc., in places easily accessible from our meeting hall, as it appears that such exhibits have proved interesting to some of our members in the past. Continuing the plan followed for the 1903 meeting, visiting members who desire rooms secured through the Committee on Arrangement have been urged to make their wishes known as soon as possible.

The unprecedented press of organization and executive work which has been thrown upon the Secretary's office during the past year, has caused the editing of the Transactions to be delayed, that the more important and urgent business might be attended to. The Secretary expects to get the last of the manuscript into the hands of the JOURNAL'S printer during March, and though the remaining time will be far too short to make the task an easy one, an attempt will be made to turn out the volumes before the meeting. If this is done, it will be a record-breaker for the JOURNAL, as 60 days is the shortest time that any other printer has asked to do this work.

Preliminary Program for 1904 Meeting.

(Order of Papers to be Arranged.)

General Medicine.—"Complications of La Grippe." Chairman Dr. W. G. Owen, White Castle.

To open discussion, Drs. J. B. Elliott, Jr., New Orleans, and G. W. Gaines, Milliken's Bend.

"Antitoxin Treatment of Hay Fever; Personal Observations Made in Dr. Dunbar's Laboratory," Dr. O. Joachim, New Orleans.

Surgery.—"The Importance of Surgical Tuberculosis to the General Practitioner." Chairman, Dr. H. B. Gessner, 830 Canal Street, New Orleans.

To open discussion, Dr. C. W. Hilton, Monroe.

"X-Ray Therapeutics of Tuberculosis," Dr J. B. Guthrie, New Orleans.

"Surgical Tuberculosis From an Orthopedic Standpoint," Dr. E. J. Huhner, New Orleans.

"Tuberculosis of the Genitals," Dr. R. Matas, New Orleans.

"Edebohl's Decapsulation of the Kidneys," Dr. F. W. Parham, New Orleans.

Neurology.—(No subject yet announced.)

Chairman, Dr. I. M. Callaway, Shreveport.

To open discussion, Drs. W. E. Kittredge, Avoca, La., and L. L. Cazenavette, New Orleans.

"A Case of Circular Insanity, With a Study of Periodicity in the Display of Psychic Phenomena," Dr. E. M. Hummel, Jackson, La.

Materia Medica and Therapeutics.—"Fewer Drugs and a More Thorough Understanding of Their Physiological Actions."

Chairman, Dr. R. E. McBride, Houma.

To open discussion, Dr. Nash Collins, Delhi, and Dr. J. C. Willis, Homer. Paper by Dr. C. Pierson, Alexandria. (Title to be announced later).

"The Injustice Which Physicians Do to Themselves and Their Patients in Too Frequently Prescribing Proprietary Medicines," Dr. C. J. Ducoté, Cottonport.

"Hypotensive Medication and Dechloridation," Dr. E. M. Dupaquier, New Orleans.

"Rectal Feeding," Dr. Allen Eustis, New Orleans.

Dr. C. H. Tebault, Jr., New Orleans. (Title to be announced later).

Diseases of Children.—"Measles."

Chairman, Dr. Charles McVea, Baton Rouge.

To open discussion, Drs. C. J. Grémillion, Alexandria, and E. D. Fenner, New Orleans.

Obstetrics.—(In active preparation. Title to be announced later.)

Chairman, Dr. A. C. King, 305 Vallette Street, New Orleans.

To open discussion, Dr. W. D. Roussel, Patterson.

Gynecology.—"Dysmenorrhea."

Chairman, Dr. S. M. D. Clark, 624 Gravier Street, New Orleans.

"Methods of Instruction in Gynecology," Dr. Isaac Ivan Lemmann, New Orleans.

"Retroversion of the Uterus," Dr. L. Perrilliat, New Orleans.

"Cystocele; Its Cause, Prevention, and Treatment," Dr. C. Jeff Miller, New Orleans.

Genito-Urinary Diseases. (No title announced.)

Chairman, Dr. Randell Hunt, Shreveport.

To open discussion, Drs H. F. Wilkins, Rayville, and Jules Lazard, New Orleans.

Dermatology.—"Pruritus Considered From a General Standpoint."

Chairman, Dr. H. E. Ménage, 624 Gravier Street, New Orleans.

To open discussion, Drs. F. M. Thornhill, Arcadia, and Isadore Dyer, New Orleans.

Ophthalmology.—"Some of the More Common Diseases of the Eye."

Chairman, Dr. R. F. Harrell, Ruston, La.

To open discussion, Drs. H. D. Bruns, and M. Feingold, New Orleans.

"Dacryocystitis," by Dr. R. F. Harrell.

"Report of a Unique Case of Destruction of Both Eyes by a Stray Bullet From a Pistol," Dr. F. M. Thornhill, Arcadia.

"Gunshot Wound of the Face, Resulting in Complete Destruction of the Sight of Both Eyes," Dr. O. O. Hamner, Bienville.

"Two Cases of Unilateral Sympatheticus, Irritation in the Eye." Dr. M. Feingold.

Otology.—(No subject announced.)

Chairman, Dr. F. E. Girard, Lafayette.

To open discussion, Drs. G. Surghnor, Monroe, and Homer Dupuy, New Orleans.

"Epistaxis," Dr. M. Feingold.

Medical Jurisprudence.—"Should the Present Law Regulating the Practice of Medicine in Louisiana Be Amended?"

Chairman, Dr. E. L. McGehee, 830 Canal Street, New Orleans.

To open discussion, Drs. R. L. Randolph, Alexandria, and M. L. Hoffpauir, Crowley.

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Quarantine.—"Yellow Fever Infection: With our Present Knowledge of the Conveyance of the Infection by the Mosquito and the Lack of Positive Information as to Infection Through other Sources, Would Quarantine Officials, as Protectors of Public

Health in Yellow Fever Infection, be Justified in Accepting the Mosquito as the Only Means of Carrying the Disease.”

Chairman, Dr. J. N. Thomas, Quarantine.

To open discussion, Drs. C. J. Ducoté, Cottonport, and Quitman Kohnke, New Orleans.

Bacteriology.—(No subject announced.)

Chairman, Dr. P. E. Archinard, New Orleans.

To open discussion, Dr. O. L. Pothier, New Orleans.

Anatomy and Physiology.—(No subject announced.)

Chairman, Dr. S. P. Delaup, New Orleans.

To open discussion, Drs. A. F. Barrrow, St. Francisville, and H. Bayou, New Orleans.

Sanitary Science.—(No subject announced.)

Chairman, Dr. S. L. Théard, New Orleans.

To open discussion, Drs. G. C. Mouton, Rayne, and A. A. Alain, Bayou Goula.

Oral Surgery.—“Dental Caries and Popular Fallacies.”

Chairman, Dr. George J. Friedrichs, New Orleans.

To open discussion, Drs. A. G. Friedrichs, New Orleans, and E. D. Martin, New Orleans.

MISCELLANEOUS PAPERS.

“Chloroform Anesthesia,” Dr. A. Jacoby, New Orleans.

“Parasitic Diseases in Men,” Dr. Edmond Souchon, New Orleans.

“Attitude of the Medical Profession towards Criminal Abortion,” Dr. L. G. LeBeuf, New Orleans.

(Paper by Dr. A. L. Metz, title to be announced later.)

“Cases of Malignant Growth Treated by Mercuric Cataphoresis,” Dr. A. Granger, New Orleans.

“The Diagnosis and Medical Treatment of Gall-Stone Diseases,” Dr. J. A. Storck, New Orleans.

“Acute Suppurative Osteomyelitis; the Importance of Its Early Recognition and Treatment,” Dr. J. F. Oechsner, New Orleans.

“The Treatment of Facial Spasm, With Report of a Case of Rare Form of This Affection,” Dr. R. M. Van Wart, New Orleans.

“Antiblenorrhagics in Gonorrhoeal Urethritis; the Question of Their Value,” Dr. A. Nelken, New Orleans.

CHARTERED SINCE LAST PUBLICATION.

MOREHOUSE PARISH MEDICAL SOCIETY. Reorganized January, 1904. Chartered March 17, 1904. Charter members 15. President, Dr. Chas. D. Clark, Mer Rouge; Vice-President, Dr. A. W. Jones, Jones; Secretary and Treasurer, Dr. O. M. Patterson, Bastrop. Following are also charter members: Drs. W. R. McCreight, Bastrop; Dave Watson, Bastrop; R. L. Credille, Bonita; W. R. Knoefel, Bonita; Eugene Knoefel, Gallion; E. W. Hunter, Gallion; J. C. Wilkins, Naff; A. D. Alexander, Mer Rouge; J. M. Rector, Collinston; B. G. Vaughan, Collinston; S. L. Williams, Oakridge; C. L. Hope, Oakridge. Meets fourth Wednesday of each month.

MEETINGS OF COMPONENT SOCIETIES.

The regular quarterly meeting of the St. James Parish Medical Society was held at Convent on Thursday, March 3. Following members were present: Drs. L. A. Gaudin, J. E. Doussan, B. A. Colomb, B. Winchester, J. F. Buquoi. Dr. J. F. Buquoi read a paper on "Medical Organization." Dr. B. A. Colomb spoke on "The Italian as a Patient." A symposium on "Pneumonia and Its Treatment" provoked interesting discussion. The next quarterly meeting will be held at Lutchet.

ST. JOHN-ST. CHARLES BI-PARISH MEDICAL SOCIETY held its first regular meeting on the first Tuesday of December. A paper by Dr. S. Montegut, on "Angio-Neurotic Edema," was very thoroughly discussed. After a successful meeting, marked by good fellowship, the members adjourned to a very enjoyable banquet. The members are united, and on the most friendly terms.

IBERVILLE PARISH MEDICAL SOCIETY held its annual meeting February 11, 1904. Following officers were elected: President, Dr. A. A. Allain, Bayou Goula; Vice-President, Dr. W. A. Holloway, Plaquemine; Secretary-Treasurer, Dr. W. L. Grace, Plaquemine. Censors: Drs. F. R. Brown, White Castle; L. T. Postell, Plaquemine. After the meeting the members and guests were invited to a banquet given by the outgoing censors, Drs. Barker and Grace, and were delightfully entertained. Out of 18 physicians in the parish 16 are members, and a majority of these will attend the State Society meeting. The next quarterly meeting will take place at Plaquemine, April 5.

PARISH SOCIETY NOTES.

SABINE PARISH MEDICAL SOCIETY meets next at Many, April 6. A good program and a jolly good time in contemplation. Expects to be well represented at the State meeting.

VERNON SOCIETY has every eligible physician in the parish except two new arrivals. Several Calcasieu physicians are members. Mutual acquaintance and a vigorous campaign against illegal practitioners are the chief concerns of the Society just now.

CLAIBORNE SOCIETY is in a healthy condition and its members are interested. A good program is being prepared for the second Tuesday of April.

FRANKLIN SOCIETY has enrolled every available physician and is prospering.

BI-PARISH (RED RIVER AND NATCHITOCHEs) SOCIETY is in good working shape. Annual meeting and election of officers will be held at Coushatta on Tuesday, April 5. A resolution has been adopted pledging the Society to aid in the prosecution of all illegal practitioners after the Spring examinations of the State Board.

ASCENSION SOCIETY is one of the most thoroughly organized in the State. Only two eligible remain outside the fold. Next meeting at Gonzales, April 13, 1904.

EAST BATON ROUGE SOCIETY is having good attendance at meetings, followed by a supper, on the first Wednesday of each month. Interest is increasing. Thirty physicians in parish, three of whom are negroes. Two are not recognized. Three are retired. One is over 70 years old. This leaves 21 eligibles, of whom 16 are members, one expects to join soon and only 4 refuse to join.

FELICIANA SOCIETY has four-fifths of the eligible physicians of the two Felicianas and is flourishing. "Summer Complaints in Children," will be the special subject for consideration at their next meeting, at Clinton, on April 12, at 11 A. M.

ASSUMPTION SOCIETY reports growing enthusiasm. Of the 13 regularly registered physicians of the parish, 10 are active members, 1 is an honorary member, one has applied for membership and the other is a negro.

WEST BATON ROUGE SOCIETY has every available physician and is pervaded by a spirit of harmony and good will. Every physician in the Parish belongs to the Society and believes in it. Dr.

H. Guy Riche will read a paper on "Obstetric Accidents," at the next quarterly meeting, which will be April 7.

TANGIPAHOA SOCIETY is progressing. It has 19 members and the remaining eligibles, about 5 in number, will probably join at the next meeting, which will be held in Amite, on April 13. In the report of the January meeting, which was published in the March JOURNAL, the title of Dr. H. P. Morris' paper should have been "Bedside Experience in Pneumonia."

LAFOURCHE SOCIETY has practically every eligible physician in the parish on its rolls. A successful and pleasant meeting was held in January, with a number of members present. Next meeting will be April 28, when a lively discussion is expected over the report of a committee on "equalization of rates for visits." (*Like Banquo's ghost, that everlasting fee bill idea continues to disturb the peace of mind of Parish Societies.*)

PLAQUEMINES SOCIETY is completely organized. Its members are interested and its affairs flourishing. Only one eligible has not joined.

ST. JAMES SOCIETY enrolled as charter members everyone of the 14 eligible physicians of the Parish. There is one recent arrival, who will probably join soon. The officers are actively at work in the interest of larger meetings and good fellowship.

THE ST. LANDRY AND ST. MARY SOCIETIES appear to be languishing.

SHREVEPORT MEDICAL SOCIETY is in a flourishing condition. Dr. Sutherlin's paper on "The Differentiation of Albumens in the Urine," proving interesting. At the next meeting, April 5, Prof. Morgan, State Entomologist, will read a paper on "The Mosquito."

MISCELLANEOUS NEWS.

Dr. I. I. Lemann, 124 Baronne street, New Orleans, is Chairman of the Committee on Exhibits, etc.

Organization meetings were called in Bienville on March 17, in Winn on March 22, in Bossier on March 24 and one was to have been called at Webster after this number of the JOURNAL went to press.

Medical News Items.

PERSONAL.—DR. MILO C. BRADY has been appointed Medical Inspector of the State Board of Health, vice Dr. C. L. Horton, resigned. Dr. Horton has left the city, and is practising at Ashwood, La.

DR. H. BARNEYCASTLE has returned to Haughton, La., and resumed practice. The doctor went to Mineral Wells, Tex., several years ago, but concluded that home was the best place after all.

MR. E. G. SWIFT, for a long time identified with Messrs. Parke, Davis & Co., has been promoted to the position of General Manager of this house. It means a great deal to follow in the footsteps of the esteemed William M. Warren, and we extend to Mr. Swift both our congratulations and earnest wishes for his success in his new office.

PASSED ASSISTANT SURGEONS H. D. GEDDINGS AND C. P. WERTENBAKER, of the P. H. and M. H. Service, have been promoted to the position of Surgeons.

DIED.—Dr. J. P. January, one of the oldest practitioners in Southwest Louisiana, died suddenly March 17, at his home, in Crowley.

OSTEOPATHY DEFINED.—In the case of C. E. Bennett, an osteopath at Pensacola, Fa., who was charged by the local Medical Society with practising without a license, the court has decided that osteopathy was not the practice of medicine proper, and that the State laws did not cover the case.

480 COLORED INSANE are at Jackson, La., and the new asylum at Pineville has a capacity for only 240. Dr. G. A. B. Hays will urge the next Legislature to make an appropriation to increase the capacity for the colored.

30,000 BARBERS have been registered under the new law in New York State since the passage of the Act.

236 AMBULANCES WERE SHIPPED TO JAPAN FROM INDIANAPOLIS during the month of March.

THE EYE, EAR, NOSE AND THROAT HOSPITAL announces that ap-

plications for the position of Junior Resident will be received until May 1. For particulars, communication may be had with Dr. A. W. DeRoaldes, Surgeon-in-Chief, at the Hospital, No. 203 North Rampart Street.

THE EYE, EAR, NOSE AND THROAT HOSPITAL has purchased property at the corner of Elk Place and Tulane Avenue. It is proposed to erect a new Hospital on this site, and the equipment is to be modern in every detail. It is a pity that this institution is handicapped for money, as it has always been the foremost institution, of a medical nature, in the State in dispensing free charity.

DIED.—Dr. Alfred Duperier, one of the oldest practitioners in the Southwest, died at his home, in New Iberia, March 22, aged 73.

PERSONAL.—Dr. B. B. Martin is the Surgeon in charge of the State Charity Hospital at Vicksburg, Miss.

THE NEWTON COUNTY MEDICAL ASSOCIATION, of Mississippi, at its last meeting, March 22, voted to become a member of the State organization, and elected a delegate to attend the State meeting at Jackson, April 20.

THE FOLLOWING RESIDENT MEDICAL INSPECTORS OF THE LOUISIANA STATE BOARD OF HEALTH in South and Central America left recently on the Steamship Anselm: Dr. J. S. Allison, Belize, British Honduras; Dr. Guy A. Darcantel, Livingston, Guatemala; Dr. F. C. Braud, Port Cortez, Spanish Honduras; Dr. W. L. Stone, Port Barrios, Guatemala.

The remaining four inspectors will go later. These are: Dr. C. Jumel, Port Limon, Costa Rica; Dr. L. A. Wailes, Bocas del Toro, Guatemala; Dr. D. P. Albers, Bluefields, Nicaragua, and Dr. King Holt, La Ceiba, Spanish Honduras.

THE TRAINED NURSES OF LOUISIANA have organized an association, with the following officers: President, Miss S. M. Quaife; Vice-Presidents, Misses K. Dent and L. P. Walsch; Treasurer, Miss M. Mackenzie; Secretary, Miss Bushey. There are 63 members.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

A Hand-Book of the Diseases of the Eye and Their Treatment, by HENRY R. SWANZY, A. M., M. B., F. R. C. S. Eighth Edition revised. P. Blakiston's Son & Co., Philadelphia, 1903.

This is the very latest edition of the well-known text book of Swanzy, and is in every respect highly superior to the older forms of the work. Indeed, as now presented, the book makes a useful and very readable addition to our formal texts. Nevertheless we are forced to add that there are portions which seem to the American reader, at least, decidedly below the standard of an up-to date text: *e. g.* the chapters upon strabismus (the old nomenclature is retained). The important subject of the phorias is barely touched upon. How much would have been added to the value of the book had the substance of Hansell & Rebers' little primer been incorporated! A statement like that on p. 498, lines 3 and 4, that weaknesses of the internal recti should be met by tenotomy of the external recti, would be regarded to-day in this country with but scant approval. On the other hand, the treatment of the paralytic effectsions of the orbital muscles is exceptionally full and good.

BRUNS.

The Practical Care of the Baby, by THERON WENDELL KILMER, M. D. F. A. Davis Co., Philadelphia, 1903.

A practical text, graphically illustrated, this work deals with every phase of the baby's care from the moment of birth up to the age of accidental intestinal parasites. Not only is diet discussed freely, but food and its preparation is detailed and, besides, excellent suggestions are given for the care and prevention of both bad habits and accidental diseases to which the infant may be exposed. The text is well done by both the author and the publisher and will prove of useful service to either nurse or mother.

DYER.

A Manual of the Practice of Medicine, by A. A. STEVENS, A. M., M. D., Sixth Edition. W. B. Saunders & Co., Philadelphia, New York and London, 1903.

No pretension is made to an exhaustive work and in submitting, now for the Sixth Edition, a *vade mecum*, the author has in every way fulfilled the purpose of this "Manual." Diseases are arranged in groups, based upon the disorders of particular organs or apparatuses, and particular care has been exercised in bringing the present edition up to the standard of current modern texts. At no time intended for extensive reference, this little book must always serve as a ready guide in emergency and as an excellent review for the student preparing for examination.

DYER.

A Narrative of Medicine in America, by JAMES GREGORY MUMFORD, M. D. J. B. Lippincott Co., Philadelphia and London, 1903.

In the start the author announces that his book is a narrative and as such it is indeed interesting. It is like reading the note book of a traveller in an old country, where the story of the ruins is told again, and on which new lights are thrown. No pretense is made at historic completeness while in debated points the author has evidently studied and related documentary evidence, *e. g.*, in MacDowell's work and in the chapter on Anesthesia. Such contributions can only make the standard of medical achievement higher and we congratulate both author and publisher on the character of the book.

DYER.

Infant Feeding in Its Relation to Health and Disease, by LOUIS FISCHER, M. D. Third Edition. F. A. Davis Co., Philadelphia, 1903.

No pains have been spared in bringing this authoritative work up to date. First reviewing the dangers of fermentative and infective processes liable to arise in the infant's intestinal canal, there is then given an atamotic standard of the baby's needs. There follow in careful detail the discussion of various foods and food products, natural and artificial, and the disposition of these in normal and in unhealthy children. The dietary of particular diseases is given and the way in which it may be prepared.

This most excellent contribution of Dr. Fischer's must stand among the best on the subject.

DYER.

A Reference Hand-book of the Medical Sciences, Edited by ALBERT H. BUCK, M. D., Vol. VII. SAC-ULC. William Wood & Co., New York, 1904.

Each volume of this comprehensive work carries the impression of thorough detail and a desire on the part of the publishers to make for it the same place the former edition occupied. The best of contributions on special subjects have been secured and to each title has been given adequate space for a thorough presentation. It is never possible to fully review so vast an array of material but here and there attention may be called to striking articles. The articles on climatological conditions in the various spas and localities coming under the alphabetic division here considered are especially noteworthy for the information contained. The article on Scarlet Fever by I. E. Atkinson and revised by Maynard Hall is complete. Howell's article on Secretion is most excellently done. The articles on Septicemia, Serum Diagnosis and Serum Therapy are notable. Keyes' article of the Sexual Organs is altogether one of the best in the volume. Other articles to be especially noted are those on Smallpox, the Spinal Cord, Spinal Cord Diseases, the Stomach, Sympathetic Nervous System, Syphilis, Tuberculosis, etc.

Altogether the same sort of commentary must obtain with this as with the previous volumes of the Hand-book, to-wit., it is essentially practical and invaluable to the practitioner of medicine who uses authoritative references.

DYER.

The Blues. Causes and Cure, by ALBERT ABRAMS, A. M., M. D. (Heidelberg), F. R. M. S. E. B. Treat & Co., New York, 1904.

"The tale of every neurasthenic," says the author, "may be written in four chapters: 1. The sins of the fathers. 2. The birth of a neurotic. 3. Struggle for existence on deficient nerve capital. 4. A bankrupt nervous system." The work is a very timely and valuable effort at combating the evil results of these. The relation of overwork and of lack of occupation

are both discussed. Strong place is given in the argument to alcohol and tobacco as factors in neurasthenia; syphilis, influenza and overwork are made contributory. Considerable space is given to the relation of abdominal overgrowth to splanchnic engorgement and a consequent type of neurasthenia. In concluding the author devotes several chapters to treatment, mechanical, electric, dietary and suggestive.

DYER.

A Manual of General or Experimental Pathology for Students and Practitioners, by WALTER SYDNEY LAZARUS BARLOW, B. A., B. C., M. D., F. R. C. P. Second Edition. P. Blakiston's Sons & Co., Philadelphia, 1904.

Dr. Lazarus-Barlow in this edition of his well known work has incorporated all the more important advances since the first edition of his work five years ago. A careful examination shows much to commend and little to condemn. Bacteria and infective diseases deserve considerable attention. The side chain theory of Ehrlich is shortly and concisely given. The chapter on animal parasites contains mention of even the two most recent additions, the trypanosoma and its relation to diseases and animals and the African sleeping sickness and the balantidium coli with its probable relation to a form of dysentery.

The pathology of the circulation and of the blood is fully considered. The author thinks that Hunter's ideas in regard to pernicious anemia have much to commend them. One finds reference to the present statistics to lesser known points in the pathology of the blood such as alkalinity.

Inflammation and its results receive considerable attention. The chapter on the sequels is good.

Infection and Immunity are well considered. The pathology of the pancreas, of gall stones, uremia of gout and exophthalmic goitre are all taken up in a highly entertaining manner.

One regrets that no mention is made of the work of Brille in the chapter on shock and collapse.

Each chapter closes with a carefully selected list of references to the more important articles dealing with the various subjects.

VAN WART.

Diseases of the Nervous System. A text-book for students and Practitioners of Medicine, by H. OPPENHEIM, M. D., and Edited by EDWARD E. MAYER, A. M., M. D. Second American Edition Revised and Enlarged. J. B. Lippincott Company, Philadelphia and London, 1904.

This work is perhaps the best of the single volume German text-books on nervous diseases. Its popularity in Germany is shown by the fact that it has passed through three editions in 7 years. This, while nominally the second American edition, in reality contains all the material found in the third German edition. To enter into detail in a short review of the material contained in this book, would be out of place. It contains a full exposition of all the commoner diseases and many of the rarer ones; few conditions described have missed consideration.

The book is not merely a compilation but contains many original observations of the author. The editor has incorporated many notes and references to the work of American neurologists which add distinct value to the book. The chapter on the diseases of the sympathetic deserves special mention, as it contains an excellent resumé of present knowledge of this little known subject.

VAN WART.

Stories of a Country Doctor, by WILLIS P. KING, M. D. The Clinic Publishing Co., Chicago.

The author has presented a number of nature pictures which are especially interesting as relating to the story of medicine in new countries. The modern equipment of urban practice is brought in strong contrast and the pathos of a country doctor's life is told in the undercurrent of the book.

DYER.

The Practical Medicine Series of Year Books, edited by GUSTAVUS P. HEAD, M. D., Vol. X. *Skin and Venereal Diseases; Nervous and Mental Diseases*, edited by W. L. BAUM, M. D., and HUGH T. PATRICK, M. D. The Year Book Publisher, Chicago, 1903.

The "Year Book" is always welcome as an excellent record of recent literature on the subjects considered. The volume in review carries the usual interesting resumé of skin, venereal and nervous diseases, presented with clear editing and reference. The general practitioner must find valuable suggestions in each field, particularly of aid in diagnosis and treatment. The chapters on Therapy of the Dermatoses and on Syphilis are especially noteworthy.

The section on nerve and brain disorders is arranged in logical order and is clearly and ably presented.

DYER.

A System of Physiological Therapeutics, Vol. VIII. *Rest. Mental Therapeutics. Suggestion*, by FRANCIS X. DERCUM, M. D., Ph. D. P. Blakiston's Son & Co., Philadelphia, 1903.

This work is characteristic of two things: First the broad interpretation of the titles; and second, the peculiar charm with which the author has made the reader a sharer in his open thoughts. In following one page after another you are impressed with a personality, spreading out into speculation, concise theory or logical argument; now and then falling back into the line of the topic, all making the travel the more interesting, because of the side journeyings. Then one gathers so much from such a text—cold facts stated barely may carry information, but here the theory of rest is established, while the relation to allied measures is argued, and if diet and massage and exercise are not strictly a part of the theory of rest, the argument has lost nothing by proving the definition in showing where these elements are essential.

A clear exposition of neurasthenia, hypochondria and hysteria is made and in what rest serves as a mode of relief. You are really carried into the practice of the author, study the sympathetic relation of the patient and put down the chapter and the book with the thought that to-morrow you will read it again.

The book is too extensive for a reviewer to particularize overmuch, but one must go a long way to get a clearer insight of mental disorders as they are met. Close analysis is avoided, critical differentiation excluded, but discursive method employed to make each affection clear and distinct, and at the same time the care and treatment are outlined together.

No better lines were ever written than those dealing with "Suggestion." The author begins with a definition which invites a further reading: "Much unnecessary mystery attaches to the term" * * * "Physicians employ suggestion habitually, though most frequently they do so unintentionally and unconsciously" * * * "Mental factors influence more or less the physical condition of every patient" * * * "Without stooping to any dishonest procedure, or imitating the methods of the various mind-curists,

faith-curists, faddists or other unqualified practitioners, self-deluded or deluding, striking results can frequently be achieved by simple and perfectly proper means." There follows the detailed explanation of the mode and method of suggestion and the book concludes with a masterly and impartial presentation of hypnotism, Eddyism, etc.

Since Fothergill, no text has appealed to us like this, and it must be read line by line and page by page for the full appreciation of a painstaking, careful, thoughtful and sympathetic exponent of broad Esculapian art.

DYER.

A Compend of Diseases of the Skin, by JAY F. SCHAMBERG, A. B., M. D., Third Edition. P. Blakiston's Son & Co., Philadelphia, 1903.

We have, in reviewing former editions of this little work, complimented the author on the succinct presentation of so large a subject in such brief space, and we can only add that each revised edition must maintain for this text its deserved place as the best of the compends written on this branch.

DYER.

How to Attract and Hold an Audience, by J. BERG EISENWEIN, A. M., LIT. D., Hinds & Noble, New York, 1903.

In what is really a hand-book the author has incorporated a mass of information of real value to the intending public speaker. After submitting the principles of elocution, the necessary qualities of a good public voice, the form and style of prepared and impromptu addresses, he has arrayed digests and excerpts of famous speakers. A number of the concluding pages carry the full text of notable oratorical efforts.

DYER.

A Manual of Hygiene and Sanitation, by SEWELL EGBERT, A. M., M. D., Third Edition. Lea Bros. & Co., Philadelphia, New York, 1903.

The present edition has been thoroughly revised and deals with the elements of hygiene and sanitation as affecting the individual in his food, health and disease, and the community in relation to ventilation, sewerage, public health and vital statistics. The early appearance of a new edition is full endorsement of the popularity of the work.

DYER.

System of Physiologic Therapeutics. Edited by DR. SOLIS COHEN, Vol. VII. *Mechanotherapy*. P. Blakiston's Son & Co., Philadelphia, 1904.

With the publication of this volume (VII), *The System of Physiologic Therapeutics* is completed with the exception of Vol. XI, which, completing the series, will be brought fully down to date by an article on Radium and its Therapeutic Uses, by Dr. Samuel G. Tracy of New York, a well known authority on all subjects connected with the new science of Radiography.

It will be noted that carrying out the liberal policy adopted with the earlier volumes much material has been included in this volume VII, which was not proposed in the original announcement and which adds greatly to its value. The principal topics remain as announced, viz.: Massage and Exercise, by John K. Mitchell, M. D., Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc.; Physical Education by Muscular Exercise, by Luther Halsey Gulick, M. D., Director of Physical Training, Public Schools

of Greater New York, etc. In addition, special articles have been contributed as follows: Orthopedic Apparatus, by James K. Young, M. D., Professor of Orthopedic Surgery in the Philadelphia Polyclinic, etc.; Corrective Manipulations in Orthopedic Surgery (Including the Lorenz Method). By H. Augustus Wilson, A. M., M. D., Clinical Professor of Orthopedic Surgery in the Jefferson Medical College, etc.; Physical Methods Employed in Ophthalmic Therapeutics, by Walter L. Pyle, M. D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia.

A few words taken from the preface will give an idea of the value of this book; the general title of this volume, Mechanotherapy and Physical Education, suggests but imperfectly the scope and character of its contents. What these are can be learned only from a study of its pages; the subsidiary titles, "Massage and Exercise," "Orthopedic Apparatus," "Corrective Manipulations in Orthopedic Surgery" and "Physical Methods Employed in Ophthalmic Therapeutics" indicate the variety of the topics discussed. The main theme, of course, that treated by Dr. Mitchell, therapeutics and their relations with the use of exercises and manipulations of the tissues sufficiently evident to justify the association. As an example of this intimate connection, the subject of Spinal Curvature may be cited. The origin of this affection frequently may be traced to faulty position at the school-desk, this in turn, sometimes depending, in part at least, upon ocular defects. Educational gymnastics and correct glassing may prevent the occurrence of curvature, while massage, remedial exercise, orthopedic apparatus and corrective manipulations all play a part in the treatment of its various forms and degrees, etc.

The numerous illustrations which enrich this book will assist most efficiently in the comprehension of the subject treated. These therapeutic measures are part of the baggage of the progressive practitioner and this book is just the kind of guide he wants. DUPAQUIER.

The Medicine Volume of the American Year-Book of Medicine and Surgery for 1904. Under the editorial charge of GEORGE M. GOULD, A. M., M. D. In two volumes. Volume I, including General Medicine. Volume II, General Surgery. W. B. Saunders & Co., Philadelphia, New York, London, 1904.

The American Year-Book of Medicine continues to maintain its high place among works of its class. Indeed, the issue of 1904 now before us, if anything, is even better than the excellent issues of previous years. Such a distinguished corps of collaborators which the editor, Dr. George M. Gould, has enlisted, is sufficient guarantee that the essential points of progress are brought out, and the collaborators' notes and commentations are excellent. In the illustrative feature, the 1904 issue fully maintains its reputation, there being 14 full-page insert plates, beside a number of excellent text-cuts. We pronounce Saunders' Year-Book for 1904 the best work of its kind on the market, as it has always been. DUPAQUIER.

A System of Physiologic Therapeutics, Edited by SOLIS COHEN, A. M., M. D. Vol. X. *Pneumotherapy*, including *Aerotherapy and Inhalation Methods and Therapy*. By DR. PAUL LOUIS TESSIER. P. Blakiston's Son & Co., 1903.

This volume is the work of a French clinician, Dr. Tessier, whose fitness for the task no one will question. The translation of his manuscript, done in part by Dr. A. A. Eshner, in part by Dr. W. M. Brickner, and in part by Dr. R. M. Gorpp, throughout is excellent.

Chapter V, Effects and Uses of Rarified Air, deserves careful reading.

Under the heading, *Adaptation of the Organism to High Altitudes*, Dr. Tessier says: "The process of adaptation takes place at any altitude. The increase in the power of the blood to absorb oxygen, which Bert first enunciated as an hypothesis and later was able to verify, is attributed by him chiefly to a diminution in the intensity of respiratory combustion. He believes that under normal conditions of pressure we consume much more oxygen than we need, just as we habitually eat more than is necessary. Thus the native mountaineer who sustains his strength with a piece of bread and a few onions, while the member of the Alpine Club on the same ascension requires a pound of meat, is probably able to cut down his consumption of oxygen without suffering any loss, either of body temperature or of power to perform work. This Bert regards as the explanation of the phenomenon of acclimatization of individuals, generations and races.

An illustration of Dr. Matas's apparatus for artificial respiration is shown, and reference is made to his writing on this subject.

Our own experience agrees with the statement which the author makes concerning formaldehyde. He writes: "The vapors of formaldehyde when mixed with carbon dioxide are readily tolerated by tuberculous patients (Corint). The sittings vary from fifteen to twenty minutes in duration. The results obtained at the Sanatorium of Villipiute (Lefevre), are most encouraging. The sputum was observed rapidly to lose its purulent character. It is not correct to charge formaldehyde with favoring the occurrence of hemoptysis. According to Gonel, who has obtained the best results from formaldehyde, the best means of establishing toleration is to add either menthol or thymol, themselves antiseptic and anesthetic substances."

As we predicted in our review of the first volume, the system of which this book forms a part, is proving a source of inestimable value to the physician who wishes to inform himself on "Physiologic Therapeutics."

STORCK.

Publications Received.

Hinds & Noble, New York, 1903.

Howe's Handbook of Parliamentary Usage.

The Man Who Pleases and the Woman Who Charms, by Dr. John A. Cone.

P. Blakiston's Son & Co., Philadelphia, 1904.

Clinical Lectures, by Sir William R. Gowers, M. D.

System of Physiologic Therapeutics, Vol. VIII. *Mechanotherapy and Physical Education*, by Dr. John K. Mitchell; and *Physical Education and Muscular Exercise*, by Halsey Gulick.

W. B. Saunders & Co., Philadelphia, New York and London, 1904.

Operative Gynecology, by Dr. Oskar Schaeffer.

Obstetrics for Nurses, by Dr. Joseph B. DeLee.

Miscellaneous.

An Ephemeris of Materia Medica, Pharmacy and Therapeutics and Collateral Information, by Dr. E. H. Squibb.

Fifteenth Annual Report New Jersey Training School for Feeble Minded Girls and Boys.

Mineral Water Sermonettes, by Dr. George Thomas Palmer.

Annual Report of the Surgeon General of the Public Health and Marine Hospital Service of the United States for the Fiscal Year 1903.

Third Annual Report of the New York State Hospital for the Care of Crippled and Deformed Children.

Memoria de Los Trabajos Ejecutados Por El Consejo Superior de Salubridad en el ano de 1900. Mexico.

Preventive Medicine, by Drs. Wayne, Babcock, and Lewis S. Somers.

Thirteenth Annual Report of the Medical Director of the Cincinnati Sanitarium for the Year Ending November 30, 1903.

Reprints.

Tubercular Ulceration of the Rectum and Anus, by Dr. Lewis H. Adler, Jr.

A Case of Mycosis Fungoides Treated by the X-Ray, by Dr. Albert E. Carrier.

Flatulence, Meteorism and Tympanites, and Treatment in Four Hundred and Forty-Two Cases of Movable Kidney Without Surgical Intervention, by Dr. Charles D. Aaron.

Education the Fundamental Principle in the Prevention of Pulmonary Tuberculosis, by Dr. Chas. Wood Fassett.

Combined Bisection of Tumor and Uterus with Partial Enucleation of Bisected Tumor in Abdominal Hysterectomy for Large Fibroid Tumors in Body of Uterus, by Dr. Geo. H. Noble.

The Bicycle as a Therapeutic Agent, by Dr. Luther Halsey Gulick.

Neurologic Progress and Prospect, by Dr. F. W. Langdon.

The Principles of Diagnosis of Medical Malingering, by Dr. John Punton.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR FEBRUARY, 1904.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	5	2	7
Intermittent Fever (Malarial Cachexia)	3		3
Small Pox.....			
Measles	6	1	7
Scarlet Fever			
Whooping Cough.....			
Diphtheria and Croup.....	7		7
Influenza	32	13	45
Cholera Nostras.....		1	1
Pyemia and Septicemia	2		2
Tuberculosis.....	46	51	97
Cancer.....	21	5	26
Rheumatism and Gout	2	1	3
Diabetes			
Alcoholism	4		4
Encephalitis and Meningitis.....	6	3	9
Locomotor Ataxia.....	2		2
Congestion, Hemorrhage and Softening of Brain.....	19	8	27
Paralysis	4	4	8
Convulsions of Infants		4	4
Other Diseases of Infancy	9	3	12
Tetanus.....		4	4
Other Nervous Diseases	2		2
Heart Diseases.....	37	17	54
Bronchitis	15	2	17
Pneumonia and Broncho Pneumonia.....	57	44	101
Other Respiratory Diseases	5	2	7
Ulcer of Stomach.....		2	2
Other Diseases of the Stomach		1	1
Diarrhea, Dysentery and Enteritis.....	8	4	12
Hernia, Intestinal Obstruction.....			
Cirrhosis of Liver.....	1	3	4
Other Diseases of the Liver		1	1
Simple Peritonitis	3	1	4
Appendicitis.....	7	1	8
Bright's Disease	32	13	45
Other Genito-Urinary Diseases.....	2	1	3
Puerperal Diseases	10	7	17
Senile Debility.....	22	3	25
Suicide	4	1	5
Injuries.....	22	12	34
All Other Causes.....	24	15	39
TOTAL.....	419	230	649

Still-born Children—White, 17; colored, 14; total, 31.

Population of City (estimated)—White, 233,000; colored, 84,000; total, 317,000.

Death Rate per 1000 per annum for Month—White, 21.58; colored, 32.95; total, 24.56.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure	30.13
Mean temperature	60.
Total precipitation	1.52 inches.
Prevailing direction of wind, south.	

DESCRIPTION OF PLATES.

PLATE I.

- Fig. 1—Head and mouth-parts of female *Stegomyia fasciata*.
Fig. 2—Tip-end of labrum-epipharynx seen from underside, the chitinous thickenings of dorsal surface showing through.
Fig. 5—Tip-end of maxilla, with its thirteen knob-like teeth.
Fig. 4—Tip-end of mandible, showing its thirty-one minute teeth.

PLATE II.

- Fig. 6—Tip-end of hypopharynx showing below flange, which forms the salivary gutter.
Fig. 3—Cross-section of labrum-epipharynx, showing the hollow spaces in the margins.
Fig. 8—Cross-section of "proboscis" containing the mouth-parts in their position and relation to each other. All parts are slightly separated.
Fig. 9—Sagittal section of the head of a female *Stegomyia*, showing the buccal cavity and its different regions, including the pharyngeal pump. Beneath the floor of the cavity are seen the salivary pump, one of the salivary muscles and the salivary ducts.
Fig. 10—Sagittal section of the salivary pump, highly magnified. The salivary gutter is deeply shaded.
Fig. 7—Transverse section at about the basal third of the length of the hypopharynx, showing the flange which forms the salivary gutter. In this connection it may be stated that no explanation has been offered of the manner in which Filariasis is transmitted by *Panoplitis* and other species of mosquitoes. So far the worms have been found within the hollow of the labium, but as the latter is not a piercing element, it can not be supposed that through it the parasites are introduced into the blood of the other host. The position and structure of the salivary gutter apparently makes it clear that the parasites found within the hollow of the labium are simply a few which escaped through the laterally open salivary gutter, whereas the transmission is effected in the same manner as in the case of the sporozoites of malaria, etc. The nematodes, being much larger, were revealed by the examination of the labium, but a few sporozoites probably also left behind within the hollow of the labium have been overlooked so far in anopheles and other mosquitoes.

PLATE IIb.

Normal Salivary Gland. This illustration was made from a freshly dissected specimen in glycerin, and demonstrates the asymmetry and appearance of the acini. The middle, shorter but stouter one, is of Christophers' colloid, or clear, type, the two lateral ones of the granular. The

PLATE III.

Fig. 1—Mosquito 75x B. Sect. 1. Section of gland, showing three cells filled with hyalin sporozoites.

Fig. 2—Another gland section of the same mosquito, with one sporozoite cell.

This mosquito, No. 75, is remarkable, in so far as it demonstrates the insect's longevity, irrespective of seasonal influence. Other mosquitoes have been observed to live 150 days or more, but with them the state of hibernation could have been urged. In this instance, however, the period of life is a prolonged one during mid-summer. The mosquito was contaminated on M. V., a fatal case of yellow fever, on June 5, 8 a. m., and afterwards fed on sugar-water until August 8. When killed on that day the insect was still active and, no doubt, would have lived still longer.

Fig. 3—Mosquito 76y C. Sect. 4. Gland section, with one sporozoite cell. Mosquito contaminated on J. M., fatal case, killed 37 days after contamination.

Fig. 4—Another gland, with two cells of hyalin sporozoites.

Fig. 5—Section of gland containing a cell in which the formation of the sporozoites has not yet occurred.

Fig. 6—Mosquito 90x B. Sect. 4. Section of gland, with three cysts containing hyalin sporozoites. Mosquito 17 days old, and contaminated on E. C.

PLATE IV.

Fig. 7—Mosquito 90x B. 5. Contaminated on E. C. Seventeen days old. Two cells containing daughter cysts and hyalin sporozoites.

Fig. 8—Mosquito 91x B. 8. Contaminated on E. C. Seventeen days old. One cell showing seven daughter cysts.

Fig. 9—Mosquito 102z B. 14. Contaminated on P. O. Seventeen days old. Two extra-cellular cysts and hyalin sporozoites.

Fig. 10—Mosquito 104x B. 5. Contaminated on P. O. Seventeen days old. Cyst still shows seven daughter cysts.

Fig. 11—Mosquito 114. Contaminated on P. O. Both mother and daughter cysts have broken down and sporozoites are becoming liberated into the glandular structures.

Fig. 12—The same gland section in different focus.

PLATE V.

Fig. 13—Mosquito y B. 11. Contaminated on P. O. Twenty-seven days old. Gland almost entirely filled with sporozoites, which have distended the basement membrane, only a few cells are remaining, the others have evidently been destroyed by the parasites.

Fig. 14—Mosquito 117x B. 13. Contaminated on H. V. Fifteen days old. One of the mosquitoes used for infection of Experimental Case No. 1. Section shows three cells with hyalin sporozoites and four nucleated bodies described in the text.

Fig. 15—Mosquito 124x B. 10. Contaminated on H. V. Nearly thirty-five days old. Three sporozoite cells and four nucleated bodies.

PLATE VI.

Fig. 16—Mosquito 125. Contaminated on H. V. Thirty-four days old. Used for infection of experimental case.

Fig. 17—The same gland as the preceding, sporozoites in the lumen.

Fig. 18—Mosquito 90x B. 3. Extra-cellular cyst seen with a Beck 1-20 oil immersion.

New Orleans Medical and Surgical Journal.

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No. 11.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

The Mouth Parts and Salivary Glands, Normal and Otherwise, of the Yellow Fever Mosquito.

By PROF. GEORGE E. BEYER, Department of Biology, Tulane University of Louisiana.

The fact that yellow fever is transmitted from man to man by the sting of an infected female *Stegomyia*, having been at last admitted beyond any reasonable doubt, the next questions, still unanswered, which arise in connection with the etiology of the disease, are: In which manner is the transmission effected, and wherein does the infection so transmitted consist?

So far, all search for the cause of the disease seems to have been futile. It has been demonstrated time and again that bacteria are not the etiological factors in yellow fever, but analogy with malaria indicated that, since an arthropod host had to intervene before infection of a new individual could occur, the cause would have to be ascribed to a protozoan organism.

Impossibility to recognize it either in the living human blood or in the organs or tissues at autopsy, and the fact that filtration of human blood did not prevent infection by inoculation into another individual, led to the assumption that the organism was of ultramicroscopic size. The search for the organism in contaminated mosquitoes apparently led to no results, the army commission in Cuba, composed of Reed, Carroll, Lazear and Agramonte, did not succeed in finding the parasite, but neither were the efforts of Guiteras or even the commission of the Pasteur Institute in Brazil crowned with any results. It is true, by these last mentioned investigators as well as by the American Working Party in Vera Cruz during the summer of 1902, some animal as well as vegetable parasites were found in various parts of the insects, but these parasites were unfortunately present in both normal as well as contaminated mosquitoes, and could, therefore, not be regarded as causal agents of the disease.

The conclusion that the actual agent is an animal organism may be arrived at by way of the following deductions made from experimental cases of yellow fever and from diseases not of animal origin.

1. That no vegetable organism is known so far for which a definite period of incubation can be put down. The development of vegetable parasites does not require such specific periods of time as an animal organism. Their reproductive process is invariably a direct one, that is, reproduction along the lines of binary division or possibly gemmation, consequently no period of incubation is necessary, and the disease may be disseminated immediately from one individual to another. Here, therefore, the disease is spread by the introduction of an organism which manifests itself pathologically, as soon as, by means of its simple reproductive method, it is numerically strong enough to interfere with the natural functions of the host, either by its disseminated presence, or the generation of toxins from a localized position.

2. The development of an animal parasite presents a far more complicated cycle. The reproductive process is usually a dual one, consisting of a sexual method, which practically coincides with that of the vegetable organism, alternating with a sexual

method which usually requires for the maturation and conjugation of its male and female elements and eventual sporulation firstly, a change of host; this change not merely in the sense of mechanical transference from one host to another of like character, but to a secondary one essentially different in activity and constitution to the first: and secondly, the incubation period already alluded to, which transpires in the secondary host and during which period transference of the disease appears to be impossible. In yellow fever a nearly uniform period of incubation must elapse before the insect can transmit the disease, which is not less than twelve days, according to the experiments of Reed, Carroll, Agramonte, and others. It has, however, also been demonstrated that, if during this period cool temperatures should prevail, a longer time by several days will be required until contaminated mosquitoes can infect a non-immune. This was fully illustrated during the experimental work in Vera Cruz (summer 1903), and furnishes conclusive evidence of the animal nature of the cause.

3. The nearly uniform period of incubation in man which, while never less than about thirty hours, is rarely ever more than five days, more usually, however, from two and a half to three days.

If now the assumption of the animal origin be a correct one, we may be further justified in believing the disease in man to be due to either the invasion and destruction of the organs and tissues by the organism itself, or to a toxin or enzyme produced by it. Furthermore, we may safely consider the transmission as well as the mechanism of transmission by the mosquito analogous to that of malarial fever. In fact, even clinically, the two diseases often simulate each other so closely that he would be a rash diagnostician, if nothing worse, who would rely on clinical diagnosis without a blood examination. Since we do not know as yet the causative organism of yellow fever, either in man or insect, the only logical way which suggests itself toward its discovery is, to seek it primarily in those organs in *Stegomyia* which harbor the parasite of malaria in its transmissible phase in *Anopheles*, and, since the method of transmission is identically the same in both insects, the same mech-

anism must be suspected to convey the parasite from one host to another.

The important point of the animal nature of the organism once firmly established from the above lines of analogy and logic, leads naturally to the supposition that a series of phases of development should occur in the organs and tissues of *Stegomyia*, similar to some extent, in habitat and process, to those of the plasmodium. Such a supposition led to the extensive examination of the stomach, malpighian tubules and diverticula, in which organs the more prominent phases of conjugation and maturation had been observed in *Anopheles*—and, finally, to the examination of the glands, in which the lodgment of the lesser sized sporozoites occurred.

From the teleological point of view, this last phase of the organism—the development of the sporozoites in the glands—in which phase and through which organ the direct transference of the disease to man is insured in malaria, outweighs in importance all other phases.

Therefore, the development of the organism itself must, at present, take a secondary place beside the demonstration of the presence of this one phase, tangential, as it were, to the two hosts, and when such a phase has been demonstrated, the cause of the disease has been sufficiently settled from the practical if not from the scientific point of view.

With this object foremost in mind, all deviations from the normal histology and contents of the glandular structures which might occur in contaminated insects just before and after the close of the accepted period of incubation of twelve days, should be regarded as indicative of a suspected phase of an animal organism. But even if on examination of fresh or prepared material such a phase could be demonstrated to occur regularly (accepting Grassi's estimation that about 50 per cent. of contaminated mosquitoes become capable of transmitting malaria), it would still remain to be proved that in the first place the glandular structures did contain the infectious agent, and secondly, that the organisms found in the glands were responsible for the production of the disease.

The main line of experiments to ascertain the responsibility of glandular transmission would be by using an infusion of the glandular contents carefully removed from the freshly killed con-

taminated insect, to produce the disease. Whether the glandular structures gave evidence of abnormality or not, the success of this experiment would demonstrate beyond a doubt that in these glands we have to seek the etiologic factor of the fever. This line of work did suggest itself during the summer of 1903 in Vera Cruz, but was not entered into for several reasons.

Firstly: It was feared that infection by means of an infusion of the glands in a normal peptonized salt solution would produce the disease in such a malignant form as to seriously endanger the life of the individual experimented upon;

Secondly: The difficulties of manipulation of the experiment gave margin for the introduction of extraneous elements of infection capable of producing a septicemia;

Thirdly: The probability of simultaneous introduction with the infusion of a causative agent, not contained in the glandular structures, but in their vicinity, either in the connective tissue or the alimentary tract, which in no direct way connects with the glandular structures;

Fourthly: At that time, filtration experiments were under way, requiring the full attention of the experimenters.

Of these four reasons given for not making these important experiments, only one can be considered valid from a scientific point of view, and that is the third. While it is not absolutely probable that an extraglandular factor of infection might be introduced, yet the minute structures under manipulation will never permit the elimination of this possibility.

These suggested experiments, however, were made about the same time in Beyrouth, Syria, by Dr. H. Graham (*Journal of Tropical Medicine*) in connection with Dengue fever. This investigator was compelled to desist from further experimentation after several successful inoculations, owing to the severity of the disease, which he produced with normal peptonized salt solution and the salivary glands of *Culex fatigans*.

According to his experiments, the second reason, as given above, seems to have been eliminated by the alleged fact that he recovered the organism found by him in the glandular structures of *Culex* from the individual infected by means of his infusions, and thereby eliminated the acceptance of a septicemia.

And yet, notwithstanding all that might be expected from these glandular structures and the mouth parts of *Stegomyia*, very little attention seems to have been given to their study and investigation. While in most of their essential details they do not materially differ from those of other mosquitoes, some consideration must be accorded to them. The sequence of description, comparative rather than original, has been taken from Nuttall & Shipley's masterly and elaborate work,* which covers the entire anatomy and biology of *Anopheles Maculipennis*.

THE MOUTHPARTS OF THE FEMALE STEGOMYIA.

The mouthparts of the mosquito are usually spoken of collectively as proboscis which, however, is composed of seven distinct chitinous elements.

Of these the most inferiorly situated one, is merely a protective sheath for the other six. (Plate I, Fig. 1.) This sheath or labium, originally representing a pair of fused maxillæ, forms a deep hollow groove, open dorsally, for the reception of the piercing elements of the insect. The labium is nearly uniform in transverse diameter throughout its length, and is composed of two joints, of which the proximal one is by far the longer. On its outer surface it is densely covered with small scales, the inner surface being lined by a very thin coat of cuticle, through which the traversing nerves, tracheæ, and muscle fibres can be plainly seen. The second much shorter joint consists of two small, somewhat heart-shaped flaps, termed labellæ, which are more solidly chitinous and act as guiding fork for the piercing organs of the insect. They are covered exteriorly by hairs, instead of scales. The real piercing apparatus of the insect is composed of six elements, arranged in the following order of attachment and position. First: a single labrum-epipharynx, then a pair of maxillæ, then a pair of mandibles, and, lastly, a single piercing stylet or hypopharynx.

The first one, the labrum-epipharynx (Plate 1, Fig. 2), presents not only a very beautiful and interesting object when viewed under high magnification, but also an astonishing complexity of structure. It is the uppermost of the mouthparts, and its dorsal surface is continuous with the clypeus. In shape it is a nearly closed

* *Studies in Relation to Malaria*, by Geo. H. Nuttall and Arthur E. Shipley.

Plate I.

Fig. 1.

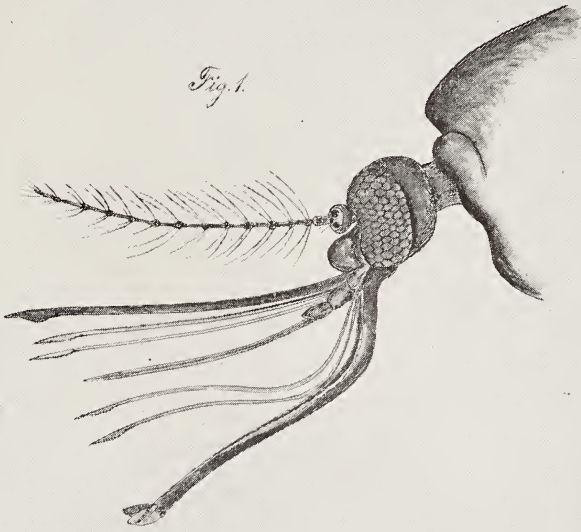


Fig. 2.



Fig. 3.



Fig. 4.



tube or rather a gutter, open ventrally along its entire length. Upon transverse section (Plate II, Fig. 3), it is found to consist of two layers of chitin which are closely approximated all around, but form a somewhat convoluted pattern along the margins. This convolution of the two layers of chitin results in the formation of three closed tubes within each side of the labrum, giving it strength and power of penetration.

The inner surface of the labrum is perfectly smooth, but the outer one, and especially its central portion, is roughened by a peculiar pavement-like thickening of the chitin resembling long and forward pointed teeth or scales. The point of the labrum (Plate I, Fig. 2) resembles somewhat, as Nuttall expresses it, the point of a quill-pen, the tip carries six very minute teeth which are placed on chitinous thickenings, but an articulation could not be determined. A little farther back another but a trifle larger tooth is situated on the margin of either side, and still a little farther back, and just within the end of the incurved edges, two remarkable knob-like prominences* are placed, which apparently are formed by the tapering and twisting of the tube-like spaces of the chitin layers of the margins.

Compared with the description and illustrations of the quoted work of Nuttall and Shipley, the labrum of the female *Stegomyia* presents considerable variation from that of *Anopheles*, a fact, which, to a lesser extent probably, is also apparent in the other mouthparts.

The mandibles, the next set of mouth elements (Plate I, Fig. 4), arise from the sides of the labrum; they do not, however, move independently, but are controlled by the muscles of the former element. In structure they are two exceedingly fine blades of chitin which, upon transverse section, seem to thicken toward the central region, their knifeblade-like margins curving slightly toward each other. The distal end of the mandible is more flattened and widened, and carries on one edge 31 exceedingly minute teeth, difficult to see or count with even a 1-12 oil immersion. In shape this distal end resembles the figure of the same organ of *Anopheles* given by Nuttall, as little as the labrum already described.

The next set, the maxillæ, (Plate I, Fig. 5) are structurally not

* Neither these nor the scale-like formation of the dorsal surface of the labrum epipharynx are mentioned by Nuttall and Shipley.—G. E. B.

much different from the mandibles, excepting that they are somewhat stouter and slightly longer, otherwise they resemble the blade of a bi-concave razor. The blade is rendered stouter by irregularly wavy thickenings of the chitin. The point of the maxillæ, instead of becoming wider than the blade, as is the case with the mandibles, is abruptly contracted and much narrower, tapering to an extremely fine point. The outer edge of the distal end bears thirteen knob-like blunt teeth, readily visible even under comparatively low magnification. The maxillæ arise from the inner sides of the base of the labium. Just a little in front of the point of origin each maxilla bears a maxillary palp, which in length reaches not quite to the middle of the proboscis.

The stylet or hypopharynx (Plate II, Figs. 6 and 7) arises practically from the floor of the buccal cavity just above the base of the labium, and commences as a cone-shaped chitinous cup, the stem part of which becomes produced into the stylet, but the mouth of the cup receives the common salivary duct. In general shape the hypopharynx resembles a double-edged sword, the parallel edges of which become widened out near the distal end, and the point of which is terminated by a further knob-like dilatation. The thickened median portion of the blade is more pronounced on the lower surface than on the upper, which is nearly flat, or, at least, only slightly curved upward at the margins, which are usually in contact with the lower portion of the labrum-epipharynx, thereby converting the latter into a perfectly closed tube. The thicker ventral portion of the stylet is in a peculiar manner produced into a stout but tapering flange, which arches over so as to nearly touch the blade and becomes an extremely fine tube-like groove, styled by Annet & Dutton "the salivary gutter."

Upon cross-section of the hypopharynx the flange appears like a hook (Plate II, Fig. 7). This partially open channel, continuing to the tip of the hypopharynx, receives within the chitinous cup, already referred to, the common salivary duct, and through it the secretions of the glands are poured into the puncture made by the combined piercing elements. It is perfectly clear, therefore, that the labrum-epipharynx, being open ventrally, is closed by the dorsal surface of the hypopharynx, and is thereby converted into a perfect tube which may convey the blood or any other liquid into

Plate II.
Fig. 6



Fig. 3



Fig. 5

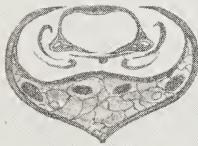


Fig. 7



Fig. 9



Fig. 10



the digestive tract without its being intermingled with the fluid which may be simultaneously ejected through the more ventral channel of the hypopharynx.

As has been pointed out by Nuttall and Shipley, the salivary apparatus of the mosquito is in no communication with the alimentary canal, a mistake which had already been made by Christophers and Giles. In the act of feeding there occur practically two currents of fluid, one outward through the hypopharyngeal groove, and the other inward through the labrum-epipharynx.

Both, however, the hypopharynx as well as the labrum-epipharynx, are possessed of a pumping apparatus, neither the anatomical structure nor function of which appear to permit reversion of their respective currents. Any elements, therefore, whether they be the natural secretions of the glands or animal or vegetable organisms or toxins contained within the body of the mosquito, can only find egress through the glandular system and the hypopharyngeal channel or salivary gutter.

The alimentary canal begins with the labrum-epipharynx, which is continuous with the roof and sides of the buccal cavity, whereas the floor becomes produced as a part of the hypopharynx. The region in which the separate mouthparts coalesce has been termed by Nuttall the mouth, which, therefore, becomes the true inlet into the buccal cavity. Nuttall justly compares the shape of this cavity with that of a railroad tunnel. Upon cross-section the floor is level, whereas the sides are arched over, forming an obtuse triangle. As it is, however, not intended to enter here into a description of the alimentary tract, it may suffice to say that, in general, its structure in *Stegomyia* differs but slightly from that of *Anopheles* as given by Nuttall and Shipley.

Mention was also made that the hypopharynx commenced with a hollowed-out chitinous thickening into which the salivary duct entered. (Plate II, Figs. 9 and 10.) This chitinous structure is really a pumping apparatus by means of which the salivary fluid is driven into the salivary gutter. In shape this pump seems to differ in *Stegomyia* from that of *Anopheles*, judging by the illustrations of Nuttall and Shipley (*Structure and Biology of Anopheles*, Part II, Plate 7, Figs. 5 and 6a). In Figure 6a the salivary groove is represented on the dorsal surface of the hypo-

pharynx, projecting into the open cleft of the labrum-epipharynx, whereas in Plate IX, Figs. 8, 9, and 10, it is situated on the ventral surface, a position which really agrees with that of *Stegomyia* as well as *Culex*. The posterior opening of the asymmetrical cup is closed by an elastic, partially chitinous membrane, which hangs into the cup like the inverted tip of a glove finger. This membrane is pierced in the center by the entrance of the common salivary duct. At the point of junction the duct is surrounded by a thick chitinous ring, upon which two powerful muscles are inserted. The origin of these muscles is upon a chitinous apodeme which arises from the lower surface of the chitinous floor of the buccal cavity (Plate II, Fig. 9). Upon contraction of these two muscles the membrane is drawn backward and a vacuum is created within the chitinous cup which causes the flow of the salivary fluid into it. Subsequent relaxation of the muscles permits the forcible return of the membrane by dint of its great elasticity, thereby ejecting the fluid into the salivary gutter.

The common salivary duct, beginning at the pump-membrane, continues in a more or less tortuous manner backward to a point below the floor of the buccal cavity and nearly opposite the pharyngeal valve; here it separates into two ducts, slightly smaller in calibre. These two passing backward below the infra-esophageal ganglion and through the ventral part of the neck below the esophagus, enter the thorax. They diverge to the right and left, and each divides into three branches which enter the lobes of the salivary glands. The ducts are chitinous in structure, the chitin being arranged in incomplete uniform rings which in appearance make the ducts resemble the tracheal tubes. In the latter, however, the chitin is disposed of in bands, wound in a spiral manner like a steel spring. All ducts are of fairly uniform size throughout their length, each one is enclosed by a transparent sheath, within which it describes an undulating course. The sheath becomes continuous with the body of the gland, and the duct itself retains its chitinous structure for a little distance into the gland, when it apparently abruptly ceases.

THE NORMAL SALIVARY GLANDS.

Professor Macloskey, of Princeton University, was the first to figure and describe these now so important organs of the mosquito.

At that time, however (1887), no one thought as yet of the far-reaching role they would play in the lives of humanity. It had been only seven years before that Laveran discovered the Plasmodium in malaria, and it was more than eight years after, that Ross and Manson found in these structures the sporozoites of *Proteosoma*. In 1897, just ten years after, Bastianelli, Bignami, and Grassi located in them the human malaria producing sporozoites.

These glands have been described since Macloskey's original description of those of *Culex tæniorhynchus*, by Christophers, Giles, Grassi, and others of a number of species of mosquitoes, but by none more thoroughly than by Nuttall and Shipley in their Biology of *Anopheles maculipennis*. From all these descriptions it is clear that the glands in *Stegomyia fasciata* seem to differ but slightly from the others. The location just within the anterior ventral portion of the thorax is the same; their number, two—each consisting of three acini—is also the same. These acini lie longitudinally in the thorax, parallel with, but ventral to the esophagus. Upon cross-section of the anterior portion of the thorax the acini are seen to be disposed of in the shape of a triangle with its apex dorsal. This position soon changes, however, owing to the accommodation which they must make so as not to interfere with the motions of the alar muscles, as well as to adapt themselves to the narrow space left them by other organs.

The central acinus of each gland, dorsal to the other two at first, curves downward between them, and the inner one moves upward, becoming uppermost. The shape and size of the glands is very variable, and depends greatly upon the size and age of the insect. The findings of Grassi and Christophers that the glands do not differ in size and appearance in fed and unfed mosquitoes seem to be confirmed in *Stegomyia*. The acini are as a rule asymmetrical, very often developing one or more lobes. (Plate II b.) The central acinus of each gland is always smaller and shorter, and, upon removal in fresh dissections, appears in unstained preparations grayish in contrast to the other two silvery glistening lobules. The longest ventral acinus usually measures from 500 to 700 micra in length, by about 65 to 80 micra in width, whereas the middle one rarely ever reaches more than 380 micra in length, but transversely varies from 110 to 130, or about twice the diam-

eter of the others. Each acinus is composed of a large but varying number of epithelial cells, which are cone-shaped, and surround a central lumen. The broad basal portion of each cell rests upon a very delicate basement membrane, whereas the more pointed end opens by means of an exceedingly minute perforation into the lumen. The cells are arranged around the lumen, usually five in number, varying greatly in size. The average largest cells in the lateral acini measure from 22 to 32 micra in length by 15.5 micra in transverse diameter at their basal portion. The cells of the central acinus are usually smaller. All of them are nucleated, the nuclei are large and occupy the basal part of the cell.

It has been stated already in connection with them that the secondary ducts divide into three, each one of these, entering an acinus, continues within the central lumen to nearly its base. In *Stegomyia* these ducts retain their uniform diameter within the lumen throughout their length, but widen out slightly at the distal end, in conformity with the broadened end-portion of the acinus. In their course through the acinus the ducts very often divide into smaller lateral branches without there being any appreciable enlargement of the gland structure itself. These short lateral branches terminate like the main ducts in a short sacculated end. The ducts appear to lose their chitinous structure soon after entering the acinus; this is especially noticeable in the lateral acini. In freshly dissected glands in glycerin, the chitinous lining of the central acinus appears to continue almost throughout the duct, although it no longer retains its ringlike arrangement and dark color, but seems disposed of in knoblike transparent thickenings like a double row of beads. The central acinus differs in general from the lateral ones not only in being shorter and thicker, but also in having its anterior or proximal portion abruptly narrowed like a neck. The cells of this anterior part are much smaller and more compactly placed than in any other part of the acinus. The nuclei of the cells are crowded closer together, and convey the impression of being in greater numbers. Christophers' observation that the cell contours are not as distinct as in the lateral glands, was also observed in *Stegomyia*. The contents of the cells in a freshly dissected central acinus appear in glycerin grayish and opaque, and sometimes granular. In sectioned and stained insects this granulation is then much more prominent, and, no doubt, pro-

Plate II 3.



duced by the coagulation of the protoplasm which, as Nuttall rightly observes, is more abundant here than in the lateral acini. It stains intensely with almost any stain. The granulations, however, always show a lack of regularity, and, notwithstanding their similarity to minute organized bodies, are upon careful manipulation of the light and focus readily recognized. At times it occurs also that the alcohol, if employed in killing and hardening the insect, has contracted the secretion of the cell and forced it upward against the basement membrane, closely appressing the nucleus to it, leaving thereby an empty space between itself and the cell end. Even under such condition there is a want of regularity of outline of the cell contents. In his description of the glands of the mosquito (*Culex* and *Anopheles*) Christophers* distinguishes between a clear or colloid and a granular type of cell. He refers the cells of the central acinus to the colloid type and those of the lateral acini to the granular. While this difference no doubt exists as a rule, too much importance cannot be laid upon it, for the granulation may be at times as little pronounced in the lateral acini as it may be prominent in the central one, and, in cross-sections of hardened and stained glands the middle lobe can be differentiated only by its location, rather than by the colloid nature of its contents. Under high magnification the granulations of the lateral acinus cells exhibit a greater regularity than those of the central one, and they appear then like minute dots. As it will be necessary to refer to the subject again further on, any other details need not be mentioned here. It may be remarked, however, that Christophers' statement in connection with peripheral cells is ambiguous and might be considered misleading, at least, as far as the glands of other than strictly normal mosquitoes are concerned.

THE SALIVARY GLANDS OF CONTAMINATED MOSQUITOES.

The reasons for the supposition that in these structures the transmitted agent of yellow fever should be found, unless it really be of ultra-microscopic size, have been discussed already at large in the beginning of this paper. During the summer of 1902 the Surgeon General of the Public Health and Marine Hospital Service detailed a working party† for the study of yellow fever to Vera

* Report to the Malaria Committee. *The Anatomy and Histology of the Adult Female Mosquito.* By S. R. Christophers, M. B. Vict. London 1901.

† Working Party No. 1, Yellow Fever Institute. Assistant Surgeon H. B. Parker, Chairman; A. A. Surgeon G. E. Beyer and A. A. Surgeon O. L. Pothier.

Cruz, Mexico, and caused the publication of the results of their investigations the following spring. This working party in the course of the examination of prepared material, encountered several parasitic forms in various parts of the contaminated mosquitoes, from which they endeavored tentatively to construct the life history of a single organism. These subsequently proved to be two or three specific organisms, among them a Saccharomycete as demonstrated by Carroll, and a Protozoan, *Nosema*, described and figured by the French Commission in Brazil, the animal character of which parasite Carroll failed to "recognize," and dismissed in his recent criticism of *Myxococcidium* as "amorphous masses." The majority of these organisms were later encountered in uncontaminated mosquitoes, and in consequence dismissed as causative factors of the disease. However, in their report, this Working Party also described and figured in the glands of contaminated mosquitoes peculiar structures which could be in no way held consistent with the appearance of normal glands, nor could they be regarded as artefacts. All of these structures occurred either within the cells or between the cells and the basement membrane of the acini, and were apparently a cystic condition of an animal parasite, and as such accepted by the members of the working party.* It was also found that these cysts in other mosquitoes of approximately the same age after contamination had increased in size until they completely filled the cell within which they were imbedded, and had then broken up by repeated division into an innumerable number of exceedingly minute bodies of a nearly hyaline character. These minute bodies were then termed "Sporozoites," and regarded practically of greater importance than the other forms or phases already referred to. These "Sporozoites," found during the early part of the fall of 1902, were submitted in the beginning of 1903 for examination and corroboration to a widely known and competent authority on Protozoa, Mr. J. C. Smith, of New Orleans, and by him also unqualifiedly pronounced to be the result of the multiple division of an animal organism.

In a paper published in the *Journal of the American Medical Association*† Dr. Carroll makes the statement that the working

* A number of hand drawings were prepared with the camera lucida but only two of these were published in the report (Figs. 29 and 30).

† The etiology of Yellow Fever, an addendum by James Carroll, M. D., First Lieutenant and Assistant Surgeon, U. S. Army, Washington.

party had since abandoned the bodies containing sporozoites (?), because "they no longer regarded them as of importance," and that the chairman of the party was his (Dr. Carroll's) authority for this statement. Dr. Carroll further refers to the subject by quoting that the chairman of the working party omitted to mention these supposed sporozoites in a more recent article on the "Etiology of Yellow Fever" in the *Journal of the Association of Military Surgeons*.†

The first statement of having abandoned off hand anything so important and abnormal as "bodies containing sporozoites" should have, at least, been modified so as to apply to the opinion of the single person, instead of the plurality, who were not aware that such a statement had been made. In connection with the second statement, it may be said that omitting mention of the supposed sporozoites in a later personal article by the chairman need not or does not imply the refutation of a prior assertion of the existence of these organisms.

To continue the work of investigation the Surgeon General of the Public Health and Marine Hospital Service dispatched a second working party* to Vera Cruz in the spring of 1903. The purposes of this party were manifold, and it was therefore necessary to formulate concise plans of procedure to unravel apparently new complications which had developed by the alleged discoveries of working party No. 1.

It was in the first place necessary to collect as much material as possible in the form of prepared normal and contaminated mosquitoes and to feed these mosquitoes, beforehand, on various substances, such as syrup, fruit-juices, and blood. It was also necessary to kill the insects at various ages, those chiefly covering the period of incubation of twelve days or more. It also had to be determined whether the organism found by working party No. 1 was the cause of the disease in man, and whether the phases described were such of a single organism or phases of several, and which one, if any, was to be connected with the etiology of the disease, and what was the nature of this connection. It had to be further demonstrated

† Vol. XIII, No. 4, October, 1903.

* Working Party No. 2, Yellow Fever Institute. Passed Assistant Surgeon Herman B. Parker, Chairman (recalled June 8, 1903), Assistant Surgeon Edward Francis, Temporary Chairman and in charge of Laboratory Jalapa, and A. A. Surgeon G. E. Beyer in charge Laboratory Vera Cruz. Passed Assistant Surgeon J. M. Rosenau, Director of Hygienic Laboratory, arrived in Vera Cruz, September 17th, as new Chairman.

whether this cause in man was a morphologic entity or not, whether it was ultra-microscopic, where did it reside, in the tissues and blood or in the blood only, and, if in the latter, in its liquid or solid constituents. Satisfactory answers to the above question would also lead to the recognition of morphologic connection between this cause and any or all phases of an organism developed in the organs or tissues of mosquitoes. In this connection also arose two further and most important questions, and these were: Can a person contaminate mosquitoes prior to the onset of the disease? and: Can a person be afflicted with yellow fever and malaria at the same time?

To obtain satisfactory answers to all these questions necessitated naturally precise methods and plans and consequently all work was formulated before any actual commencement. Since the reply to several of the questions depended upon filtration experiments, this work was considered to be the most important next to the preparation of mosquitoes. But to insure the absolute authenticity of the blood filtration as well as to prove over and over again the mosquito transmission, it was decided not to use for filtration the blood of an already existing case of yellow fever, but to produce the infection of a non-immune by means of bites of mosquitoes which had been reared from larvae in the laboratory and had been allowed to feed on fatal cases during the first three days after the onset.

After thorough preparation of the rooms for the reception of the proposed patients, the latter were subjected to a rigid physical examination and then placed into the mosquito-proof rooms for further observation prior to infection. This infection was attempted in three consecutive cases without success. The failure to produce infection was attributed to several causes; firstly, to the use of insects when barely twelve days old; secondly, to the prevalence of low temperatures during this period of twelve days, a fact which was held accountable for a probable retardation of the development of the causal agent within the mosquito. By the time that the fourth attempt was made under normal conditions of summer temperature, the mosquitoes used were older than twelve days and the desired result was obtained. It may be remarked here that the age of mosquitoes is reckoned in this paper from the time of feeding or contamination. The solution of the questions already

referred to was now attempted according to a plan (see annexed plan) which was thought to cover effectively every point in connection with the disease. The work was carried on without interruption and with perfect success as far as the experiment denoted in the plan as case II, but the more important ones, denoted as cases III and IV, were not entered into for reasons, which while illogical, were urged by some member of the Party. As it is, however, not within the precincts of this paper to enter into the details of these filtration experiments it will suffice to say that case III will be called upon again in connection with another subject matter later on.

Subsequent examination of non-contaminated mosquitoes revealed the fact that some of the phases of the organism described by working party No. 1 under the name of *Myxococcidium Stegomyiæ*, did occur in them and that the supposed foothold for the discovery of the cause of yellow fever had been lost again almost entirely. It became necessary, therefore, to trace anew the causal factor from that point where it was, for reasons explained at length in the earlier part of this paper, most likely to meet with results. In order to be thoroughly prepared for anything of an abnormal character in the glandular structures, all non-contaminated mosquitoes, *Culex pungens* as well as *Stegomyia*, were carefully examined and the findings recorded. Beyond the usual normal granulations of the lateral acini or an occasionally more strongly pronounced coagulation of the secretions of the central acini, no bodies or semblance of bodies were detected. All mosquitoes, whether contaminated or not, were numbered consecutively and reference to any one is made by its respective number. Of the contaminated ones only those which had reached the age at which transmission becomes possible and which had been contaminated on undoubted and fatal cases have been brought to consideration in these pages. These mosquitoes are thirty-seven in number, and of these, twenty-eight or more than 75%, were found whose gland structures showed, in general appearance, deviations from the other nine as well as from the glands of non-contaminated mosquitoes. These aberrations from the normal conditions of the glands themselves or their cells proved to be not merely structureless cysts but apparently phases of a definite cycle of development, which had escaped detection in the prepared specimens of Working Party No. 1, which, no doubt

had been due to the fact that other staining methods had been employed. These cyst-like structures can be readily divided into at least four phases, but it must be understood here that there is no attempt made, at present, to describe any cycle of development of an organism beyond the relation of the actual findings in the glands and the demonstration of what were termed "Sporozoites of the *Myxococcidium Stegomyiæ*" in the report of Working Party No. 1, and, consequently, the tangential phase between man and mosquito in the transmission of yellow fever. Nevertheless, in the course of the examination of the thirty-seven mosquitoes mentioned it was so clearly apparent that not only could the same exceedingly small and hyaline bodies be demonstrated, but also that their origin was traceable to the larger cyst-like structures already spoken of. The small hyaline bodies or "Sporozoites" were found in, at least, fourteen of the twenty-eight mosquitoes in unmistakable form, in the others their typical appearance was not as pronounced, and the cells containing them had more the appearance of heavy granulations which, however, on account of the perfect regularity of structure made them easily distinguishable from the true granular matter of the normal cells. Several of the insects with which experimental yellow fever had been produced were found to contain in their glands these small hyaline bodies or "Sporozoites." In one of them (Mosquito No. 125, Plate VI, Fig. 17), they occurred in the lumen of the gland, in another (Mosquito No. 79, Plate V, Fig. 13) they had developed in such immense numbers that after breaking down the cyst and cell walls, they had distended the basement membrane until the acinus was enlarged so much that it had lost all semblance of its normal outlines. In some mosquitoes the encysted bodies were found still confined within the cellular membrane if located intracellularly; in others, within their cyst membrane if located extracellularly. In either case several of these cysts demonstrated that the "Sporozoites," while filling the cyst, had originated from or within smaller cysts, the membranes of which, still visible in some, became eventually absorbed, and, therefore, the "Sporozoites" appeared at their maturity as being the product of direct multiple division. Tracing the development of these cysts farther, it was observed in several mosquitoes that the earliest phase noticeable was the almost structureless but nucleated round bodies. In all mosquitoes in which these bodies were found, they were of

Platte III.

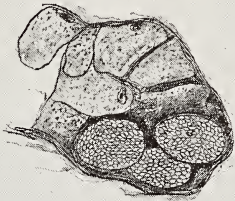


Fig. 1.
76 x B. 1. x 900



Fig. 2.
75 x B. 2. x 900

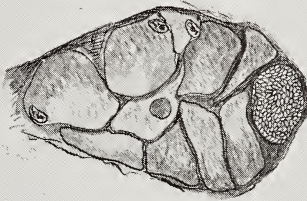


Fig. 3.
76 y. C. 4. x 900

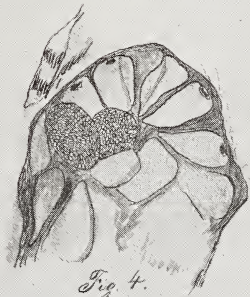


Fig. 4.
76 x A. 1. x 900



Fig. 5.
76 x A. 1. Fig. 2 x 900

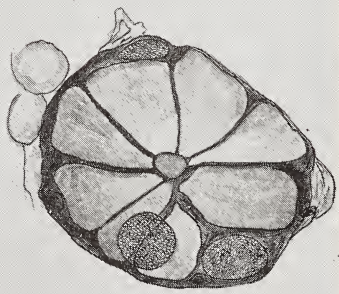


Fig. 6.
90 x B. 4. x 900

Plate II.



Fig. 11.
117 a. B. 10. No. 1.
x 150



Fig. 7.
90 x B. 3 x 150

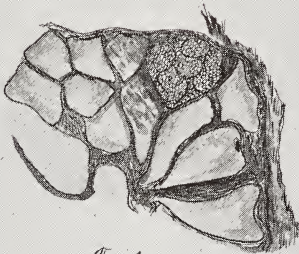


Fig. 8.
91 a. B. 8. x 400.



Fig. 9.
102 a. B. 14 x 400

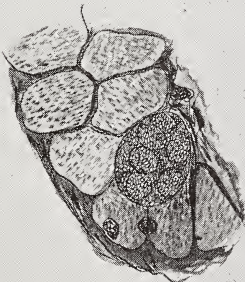


Fig. 10.
104 a. B. 5 x 150



Fig. 12.
114 a. B. 10. No. 2.
x 150

nearly the same apparent development and size. In one insect (No. 117, Plate V, Fig. 14) the largest measured seven micra, or nearly one-half of the long and more than half of the transverse diameter of the cell containing it. Another adjacent cell, 14.9 micra in length and 12.3 in width, contains two bodies, the larger one 6.7 and the other 5.4 micra. The fourth one, in a neighboring cell, is still smaller, measuring only five micra. Another mosquito (No. 124, Plate V, Fig. 15) contaminated on H. V. and also used for infection of experimental case No. 1, while containing numerous "Sporozoites" still harbors in three adjacent cells four of the bodies just described.

Some of these bodies or cysts were found, as already stated, extra-cellularly, that is between the basement membrane and the gland cells (Mosquito No. 90, Plate III, Fig. 6). In this position and during this stage of development they are less easily detected and it is not until they have grown much larger and the "Sporozoites" have formed that they become appreciable and distend the basement membrane at the point of location. This distention readily differentiates them also from the "peripheral" cells of Christophers.

The attention has been called to the fact that the development from the simple bodies, like those of mosquitoes 117 and 124, to the "Sporozoites" could only be traced by what may be called "belated" forms, and it was impossible, therefore, to note the process of formation of the intervening stages. The result of an apparent division, however, was noticeable, especially in mosquitoes Nos. 90, 91, and 104 (Plate IV, Figs. 7, 8, and 10), where the walls of the smaller six or eight cysts are still clearly defined. But even in these daughter cells the hyaline sporozoites are already formed. In mosquito 114 (Plate IV, Figs. 11 and 12) the liberation of the sporozoites was apparently in process and the absorption of the daughter-cyst walls was nearly completed. There seems to be no doubt that the division of the mother-cyst results in the formation of from eight to ten daughter cells and that each one of these then proceeds to a practically unlimited multiple division, giving rise to the "Sporozoites."

As there seems to be absolutely no ground to believe that any mistake in recognition of the organism just described has been made, that upon oft repeated and careful examinations previous findings had to be corroborated and that every line of argument against their

acceptance had been made, it became clear that in the minute hyaline bodies a last and tangential phase should be suspected and that their description in the report of Working Party No 1 must be attested, notwithstanding the reputed difference of opinion of its chairman.

The material was all stained with a modification of Ehrlich's acid Hematoxylin and some of the specimens were eventually restained with a saturated aqueous solution of Nigrosin and some with Goldhorn's Polychrome. The results with either were very satisfactory in so far as they emphasized the hyaline cysts and sporozoites.

Bearing in mind the description of the mouth parts and their connection with the glands through the salivary ducts into the lumen of each acinus, if these hyaline bodies be found in the lumen and almost throughout the gland itself in a mosquito which was known to be one of those by means of which the disease had been produced experimentally, we must conclude that there exists a justification to trace these minute bodies on their road of expulsion from the mosquito, an occurrence which is as inevitable as the perfect mechanism of the insect whose parasites they were, can accomplish. Whether these organisms really are the etiologic factors in the production of yellow fever or not, remains yet to be proven, but the proofs would, probably, have been forthcoming or, at least, better deductions could have been made, if an answer to both Case 3 and Case 4 of the working plan had been obtained. The so often referred to ultramicroscopicity in connection with the disease under consideration would have been determined and the entity of an organism or the mere transmission by filtrate of an enzyme or toxin created by the organism, would have been settled.

In connection with filtration experiments it should be borne in mind that their success or failure can be a relative one only. The organism described above is exceedingly small and at least as minute as the smallest bacillus, which is not known to pass through a fine filter and consequently it may be assumed that the hyaline bodies would also be prevented from passing which, however, according to the experiments of Working Party No 2 of the Yellow Fever Institute in Vera Cruz, 1903, was not the case. In their experiments the workers succeeded in producing the disease by inoculation of serum-filtrate obtained with a Chamberland B. Quite the reverse results with the same size of filter were experienced

Plate V.



Fig. 13.
79 y B. 11. x 400.



Fig. 14.
117 y B. 13. x 900.

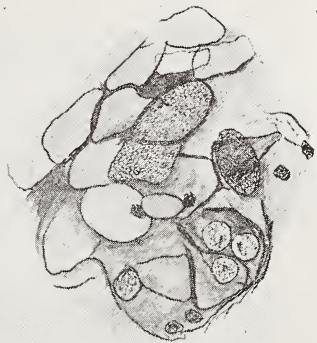


Fig. 15.
124 y B. 11. x 400.

Plate II.



Fig. 16.
125. a. B. 14. x 1150.

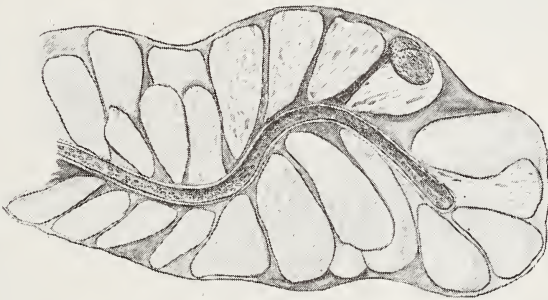


Fig. 17.
125. a. B. 15. x 1150.



Fig. 18.
90. a. B. 5. x 1500. The Bark.

by the French commission in Rio Janeiro in 1902 and 1903, the experimenters failing to produce the disease with Chamberland B., but succeeding with the coarser F grade.

Dr. Carlos J. Finlay of Habana comes to the conclusion that the agent of yellow fever cannot pass through a filter of great density (*Conclusiones generales*, No. 6—*El germen de la fiebre amarilla no atraviesa los filtros muy densos, Chamberland B., Habana, 1904, Page 61*), a conclusion which in itself carries virtually three propositions, namely: That the organism is not ultra-microscopic in size, of whatever nature it may be to have remained invisible thus far.

Secondly: That filters in themselves cannot be relied upon, for there is no possibility of knowing their absolute soundness and the possibility exists of causing an invisible break during the process of sterilization in a filter which before had been tested and had proven perfect. Such a possibility may be attached to the experiment of Working Party No. 2 for the reason that the French commission *did* succeed in stopping the supposed agent.

Thirdly: The success of this experiment of Marchoux, Salimbeni, and Simond's apparently demonstrates that the disease is not due to an enzyme or toxin but, presumably to a morphologic entity, for if the fact can be positively established that Chamberland B alone prevented the transmission and no other cause, the proposition of Case 4 of the working plan would be answered in the negative. Working Party No. 2 established the fact that the particles passing through the Chamberland B, by means of which they produced the disease, were not ultra-microscopic, since the minute particles of carbon in a weak solution of India ink in distilled water were microscopically demonstrated in the filtrate. In reference to animal organisms it may be surmised that they will, no doubt, more readily pass through the porous channels of a filter on account of the yielding nature of their body structure, when vegetable organisms, even smaller, would be prevented by the more rigid cellulose cell-walls.

While it may be, at present, too early to regard the so-called "Sporozoites" found in the glands of contaminated mosquitoes as the morphologic entity responsible for the production of the disease, it may be well to follow them into the blood of a non-immune. So far the search for any organisms in the blood or tissues of man has been of no avail, the examination of the organs obtained at

autopsy has likewise failed to demonstrate the development of an organism. This failure to find the organism may be due to the fact that the search heretofore has been made too long after its development had been accomplished in the organs most affected in yellow fever. It stands to reason, consequently, that it must be looked for before the onset and during the average period of incubation of three days. This may be readily accomplished in any country where death sentence is still carried out on criminals. Infection by contaminated mosquitoes should be secured from twenty-four to forty-eight hours before execution and the autopsy and preparation of the tissues be made immediately after.

CONCLUSIONS.

1. That the glands of contaminated mosquitoes of the age of twelve days or more contain phases of development of an animal organism, the last one of which consists in an exceedingly small ovoid hyaline body of about one micron in length.

2. That this organism or any of the described phases have thus far not been observed in non-contaminated mosquitoes.

3. That the last phase, the so-called "Sporozoites," being found in the lumen of the gland of an insect which had produced a typical infection, must be regarded with suspicion of being the causative agent of the disease.

4. That proof to this effect can only be arrived at by experiments indicated in the body of this paper.

In conclusion the grateful acknowledgement of the excellent services of Miss Laura Alice McGloin is hereby tendered. Miss McGloin, a post-graduate student in biology, chemistry, and geology and successful applicant for the master's degree of the university, has been a most valuable, painstaking, and critical assistant in the laboratory, and much of the success, if there be any, of the labors of the past six months is due to her untiring efforts.

The Advantages of Medical Organization.*

J. F. BUQUOI, M. D., Colomb, La.

EDUCATIONAL AND SCIENTIFIC.—The noblest and most worthy object for which a medical society is created is the education of its

* Read before the quarterly meeting of the St. James Parish Medical Society, March 1904.

members in that which relates to their work. There is no calling in which it is so necessary to constantly study as in that of medicine. Medicine is not an exact science, but it is progressive, and until perfection is obtained and all of Nature's secrets are revealed, it will continue a progressive one.

Theory alone governed medical men of old, even, as regards the gross structure of the human body. Until 1543, when Andreas Vesalius published his "*Fabrica Humani Corporis*," there were practically no facts for the foundation of medical practice, and it was almost centuries before the facts that Vesalius gave us were appreciated.

The physiology of respiration was an absurd theory until Mayow in 1668 discovered a partial fact in his igneo-aereal substance, but it took a hundred years for a Priestley to discover the whole of that fact and name it *Oxygen*. Facts took the place of theory very slowly until the last fifty years, and even the last thirty years. But now facts are rushing upon us so rapidly that theory in every branch of medicine is tottering.

Not two decades ago since, possibly, a majority of those now practicing graduated, the theory as to the cause of inflammation of the bowels, peritonitis and perityphlitis has been supplanted by the fact of an inflamed vermiform appendix; and the fact that an insect causes the spread of malarial and yellow fevers, and possibly other diseases, is taking the place of various theories. Never in the history of medicine has there been a supplantation of theory by facts as is now taking place. The man who starts out from a medical college with his degree is laboring under a most serious mistake if he thinks that he is educated. For even if he has mastered the medical knowledge of the day, which is highly improbable, he has entered a profession that is moving forward and onward, and if he would be among the first he must associate with those in front and be spurred on by their enthusiasm and their assistance. He who does not is bound to be left behind.

The knowledge of what is transpiring in the line of medical progress can be learned from medical journals, but with difficulty. It may be said, with no small amount of truth, that a very, very few do keep in touch with this progress by reading only.

Foster tells us that: "What we know and what we think is not a new fountain gushing forth from the barren rock of the un-

known at the stroke of the rod of our own intellect. It is a stream which flows by us and through us, fed by far-off rivulets of long ago."

The ebb and flow of this stream is reflected first in our medical societies and then, but with less interest, in our scientific journals. In the former every statement is examined, criticised, proven false or true by the reasoning together of those able to pass judgment. In the latter the same statement appears cold and apathetic and is to be analyzed by the individual reader, by himself alone. The meeting together in medical societies makes physicians broad-minded and liberal towards the views of others. It makes the average individual recognize his own short-comings and the abilities of others. It stimulates study and investigation, for the greatest stimulus to study and investigation comes from association with students and investigators.

The competition of trade urges the merchant to greater enterprise, and seeing his fellow-laborer at work nerves the toiler's arm. The stimulus of association with the workers nerves those with ambition to keep up with the leaders.

The physician, especially the general practitioner of the country, works under peculiar and in some respects unfortunate conditions—he works alone. Men in other callings either work or meet together with others to exchange views regarding their labors. Even the farmer following his plow from sunrise until sundown, manages to meet his neighbors at the store or elsewhere and discusses with them crop conditions and prospects and exchange experiences. A lonely worker in any pursuit is liable to become self-reliant in what he does—too much so for his own good and those whom he serves. If the work be one of the handicrafts in which manual dexterity is the all important, it matters but little. "Practice in this makes perfect." But the work of the physician is peculiar, however, in that practice does not make perfect. His is a progressive work and if he does not push onward with the crowd he is relegated to the unenviable class of "*Mossbacks*."

The physician who works alone day after day without associating with his fellow-men in like work, will, in spite of himself, become narrow, fall into a rut and his professional horizon will soon extend only within the narrow confines of his own narrowed views and medical life. The tendency of his work is to make him mor-

bid—he is convinced that he is doing his work better than others. He is not stimulated with the ambition to progress because he does not know and will not believe that others are progressing.

Nothing will prevent this deplorable condition of lethargy so well as an occasional attendance at a society meeting, where we come together to discuss scientific questions which vitally effect us in our line of work. He who does this will keep out of the rut; his self-conceit will be modified at least, and a realization of the fact that others know as much as he, will compel him to render that respect due others.

SOCIAL.—The second object of organization is the promotion of friendly intercourse among physicians. One of the greatest curses of our profession is the existence of petty jealousies among local contemporaries, that seem so prevalent. It will not be well for me at this time to consider in detail why these jealousies exist. Suffice it to say that as a general proposition it can be summed up in the word *misunderstanding*. That the isolated character of our work is the primary cause there is but little doubt. Too often enmity is created between physicians living in the same neighborhood through the silly tattle of vaporing idlers. Prejudices founded on imaginary insults or wrongs are allowed to grow into deadly animosities. One of the best preventives as well as the best remedy is the coming together of the supposed enemies and face to face talk it over. Few of us are black as our enemies think. A closer acquaintance will reveal lots of good that could not be detected at a distance. An active local medical society is a splendid preventive of local jealousies, especially if a little time be given for sociability and for fraternizing, and if to this be added an occasional luncheon, dinner or smoker, the results in this regard will be surprising. Cropping legs under the same table, eating salt from the same salt-cellar, will banish petty animosities as the noon-day sun banishes the morning mist. If the medical society had no other value than that of a social club it would be worth all its costs.

POLITICAL INFLUENCE.—Not the least to be gained by organization is political power. Thus far physicians have had but little political influence for the simple reason that they have not been united. There is probably no trade, calling or profession in which the individual member wields as much influence as does the physician. No one comes closer to the people than he, and his

opinions carry greater weight than do those of any individual. What is needed is a combination of this influence so that it may be effective when needed. That physicians when united for political work are a power has been repeatedly proven in many countries during latter years. Such a combination to be effective must reach every hamlet or wherever there is a physician. Politicians will respect us if they know we are united. Who was more beloved and held in higher esteem through Continental Europe than the immortal Virchow, who was for forty years a member of the Prussian Diet and for a number of years served in the German Reichstag?

The word "political" as used here must be taken in its better meaning.

ENFORCEMENT OF MEDICAL LAWS.—Another need for organization is for effective work in enforcing medical laws. To simply put laws on the statute books and do nothing else is only half accomplishing the good that is sought to be obtained.

Axiomatic as this may be, the idea has never seemed to be appreciated by those who have been working for legislative enactments and for the regulation of the practice of medicine. Time, energy and money have been spent to get the necessary laws by committees appointed by our State Society, but with this accomplished nothing more has been done. Laws will not enforce themselves. Of this we may rest assured.

We may theorize as long as we please about it being the duty of the prosecuting attorney to attend to this matter, but the fact remains that these politically appointed or elected officers will not do their duty except in rare instances because a united profession does not demand it. The individual member of the profession who takes upon himself this task will generally live to regret it. Hence it becomes the duty of the Parish and State Societies in that proverbial "Strength in unity" to assert their rights and rigidly enforce laws to protect individual members of the profession.

THE BUSINESS SIDE.—High ideals, noble motives and self-sacrificing work are the characteristics of the average physician and his daily work is a proof of this.

While the members of our profession are not supposed to be dominated by commercialism there must be recognized, however, the necessity for the utilitarian. There is a business side to the

practice of medicine, and the majority of us seem sadly lacking in business methods, although it is hard to say why. It is not my purpose here to discuss this all-important question, but only to suggest that a mutual exchange of views in regard to the physician's work would result in much good. A mutual understanding among physicians living in the same neighborhood, as to fees, collections, etc., could not but result in many instances in a better provided home for the doctor's family.

A fair, legitimate fee should be exacted and maintained for professional visits, surgical work and midwifery, the latter which has depreciated so much in value during recent years.

If one man persists in placing a low price on his services in opposition to the wish and practice of other physicians of his neighborhood, I say, gentlemen, he should be ostracized both professionally and socially by his fellow-practitioners. Such an individual will in time learn that no man ever made a reputation by placing his services lower than those of his confrères and that he who places a low estimate on his abilities will find that his patients will generally judge him by his own standard.

An intelligently organized profession will be of inestimable value in bringing about a mutual understanding among physicians which will ultimately redound to their personal welfare.

SOCIETY OR CLUB PRACTICE.—This evil has taken root and is steadily growing in this country as well as abroad. It has become the curse of the medical professions of both urban and rural districts. The original idea was a banding together of the poor and needy who could pay but little, and by this banding together were able to employ a physician and pay him a fair amount for his services. There is no objection to this. But this principle is now extending to organizations gotten up by individuals for personal benefit, the object being to buy physicians' services at wholesale and sell them at retail, not to the poor and needy, but to those who are well able to pay. There is but one way to meet this organized effort to degrade our profession and that is by organized resistance.

Keeping in mind the objects of organization it will readily be appreciated that the Parish Society is the most important of all the medical bodies. While the State and National Societies are necessary, their greatest value depends on the fact that in them the Parish Society can be created, supported, encouraged and made

most useful to its members, both for educational and general purposes. Without the sacrifice of time or money in reaching its place of meeting the Parish Society furnishes to every reputable physician the opportunity for membership with the professional, social and material stimulus belonging thereto; it produces harmony, promotes good fellowship, and removes petty jealousies; has an elevating influence on its members and aids them in educational and scientific advancement.

It is through the Parish Society that the individual must be reached and given the opportunity to register his views regarding the measures and questions which affect him, and consequently the profession as a whole. Through it must be reached those who are cold, apathetic, indifferent or ignorant of the value of medical associations.

Political influence depends on the machinery of which the Parish Society is the all-important part, for only with its aid can we reach and influence the legislator at his home and among his supporters, and consequently, where influence will have the best effect.

The enforcement of medical laws, the eradication of quackery, which prevails both in and out of the profession, cannot be thoroughly accomplished except by the instrumentality of a live Parish Society. Collective investigation depends on it to reach out to the individual member for his part of the great work of centralizing medical knowledge. Only through it can be had a record of those legally entitled to practice, including their qualifications, standing, etc.

Having studied the subject of this paper in all of its bearings, you will readily realize that a system of organization to be effective and permanent, must receive the undivided support of those who compose it.

In conclusion, I therefore exhort every active member of our local body to lend their individual efforts and strive to place the St. James Parish Medical Society foremost among other parochial organizations of this State.

Clinical Report.

Report of a Case of Scarlet Fever, with a Brief History of the Origin.

By S. L. WILLIAMS, M. D., Oak Ridge, La.

HISTORY.—Scarlatina was probably introduced through clothing purchased in St. Louis by one of our merchants, who says: "My little son had an eruptive disease after wearing some of the underwear; had a throat trouble in the beginning; was afterwards treated for rheumatism."

Later a disease made its appearance in another home, where each of four children had symptoms alike. The first and older was attended by the family physician and soon dismissed. Three others following were treated by the parents. All recovered except the three-year-old boy, who relapsed after the eruption subsided. Their physician was called and myself later to assist them, but the high fever, thickened and inflamed skin and tympanitis and delirium soon terminated the case fatally, and without any assured diagnosis.

During the summer several months later another home two miles away became infected, probably through the visit of a lady who, after examining clothing in the infected house, returned to the children. A death was recorded and the diagnosis given was scarlet fever.

The next home invaded appears as a near neighbor to the one in town.

In August the infection was felt by the younger member of the family; she, after having a throat trouble a few days, was dismissed by the family physician. The next daughter, age five years, became suddenly ill, had a slight chill and a severely inflamed throat, followed immediately by high fever and nausea, and in 24 hours the eruption, which on the third day was diagnosed as scarlet fever, contrary to the opinion expressed favoring measles. Precautions were arranged for managing the case, the mother, the grandmother (an experienced nurse) and a constant lady friend were the regular attendants; their helpfulness cannot be told in this paper or the full report of the case in every particular.

Prostration threatened and forbade the local treatment to the inflamed and hypersensitive pharynx; cold sponging became neces-

sary, as the characteristic rash* covered the body and increased the nervous excitement; the temperature registered about 105 degrees F. under the sponge. The peripheral nerve supply excited by the eruption increased the fever, or the fever, through the action of the toxins, increased the eruptions and caused paroxysms of a nervous nature bordering on delirium.

The rapid pulse and excitement from the beginning classified the case as septic rather than simple or toxic form. Gastric irritation was an annoying symptom and greatly lowered the vital forces during the later days of the first week. Cracked ice afforded a means of support and relief, while hypodermic medication and nutrient enemata became necessary. After administering calomel, the chlorin mixture was ordered and given every four or five hours for 48 hours. Battley's sedative was given in one and two drop doses to relieve the nervous excitement. Exhaustion and weakness increased day by day and for fear of collapse, brandy was given dilute hypodermatically. On the tenth night the patient was thought to be rapidly passing away. An examination with a strong light close to the partially close-set lids gave a semblance to *more light* and not the film so characteristic of deprived secretions, whereupon the thought expressed by an ancient prognosticator came to mind: "With a tear there is life."

One-half pint of salt solution was introduced by high enema through a flexible rubber tube beyond the sigmoid flexure and was retained by pressure of the fingers over the sphincter and gluteal muscles. Results were satisfactory. The patient was well nourished during the next four days by nutrient and saline enemata, but with the renewed strength came the rapid pulse, high temperature, general and more virulent erythema. Delirium became apparent, resulting from nervous excitement. Prostration increased after a night's tossing without the usual doses of Battley's sedative. Normal salt solution was advised and given subcutaneously, at early morning, as a last resort.

Morphin and atropin was given hypodermatically to quiet the patient's restless condition and prepare the way for introducing the solution, which was slowly forced under the skin through two needles introduced into the leg externally below the right hip joint.

* W. T. Corlett, *Treatise on Acute Exanthemata*, p. 179.

The pulse rate was reduced and became regular after thirty-two syringefuls had been injected.

The patient's condition was 50 per cent. improved after the first hour and she rested well until about 9:30 a. m. An hour later the father stood at the door and greeted my return: "Doctor, she is dying."

An examination proved the reverse state of affairs. The patient was conscious and answered slowly to her mother's call; her face showed the characteristic flush caused by the atropin, her breathing was slower than normal and showed plainly the effects of narcotism, which was due to an additional dose of Battley's sedative administered when not indicated and after the morphine and atropin had relieved the excitement. This error was not sufficient to cause a fatal ending. The patient responded easily to a small hand battery, which was applied after the body was submerged in a warm bath and placed in a blanket to rest. Ice was applied to the head and once more conditions were favorable. During the next three days a steady improvement began, but owing to a professional difference my visits were discontinued. In time the little one became unconscious and the case was again pronounced hopeless by a physician of repute on his second visit. He recognized the symptoms and gravity of the sequelæ and complications (uremic poisoning) and could offer no specific but the untimely end. The parents were again subjected to the heartrending scene of facing an open grave. The child was apparently dead, the third time, as unconsciousness during three days was bordering on convulsions. My return was solicited by the father, who asked "for his wife's sake to remain in the house until the end, not that he had any further faith in the belief that any good could be done," but a consultation could be had, in compliance with a former request, before the visiting physician left. On returning and examining with Dr. E. the emaciated, immovable and contracted form, whose mouth had been closed more than 24 hours and whose only sign of life was a rapid pulse and a hurried respiratory movement, with eyes failing to have the appearance of a tear, set and devoid of reflex motion, told the end was near at hand. Our consultation resulted in giving the prognosis to death's claim within 24 hours.

An extreme power of endurance alone lightened the responsibilities when all but life and soul and friends had fled, and prompted

the repetition of the subcutaneous salt solution as before to an amount not exceeding 3 hypo-injections. This gave temporary support and at the expiration of 24 hours the patient was no nearer death's door.

The suppressed urine passed involuntarily in small stains on the sheets and afterwards responded to the enemata and warm turpentine stupes, which gave evidence in a few days that a change might be expected. The butter treatment being introduced is here credited with having a God-send effect, relieving the kidneys of their work through the nutrient absorption in the skin, nourishing the body, reducing the temperature and preventing nervous excitement and tissue waste. The quantity used on an average was two pounds in every 24 hours, well rubbed over the entire cutaneous surface through a period of 20 days. The effect demonstrated the fact that when the skin becomes dry and free from butter, fever and restlessness would return; however, normal salt solution restored the senses after the patient had been unconscious two weeks and enabled her a large part of the time to take nourishment by mouth.

While convalescence was long, the patient recovered her normal health, after having two large abscesses on the leg where the salt solution was injected. These abscesses probably drained the body of degenerative tissue and toxins through leucocytic action and prevented throat abscesses and further complications.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. M. J. MAGRUDER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING OF MARCH 12, 1904.

DR. MAGRUDER, President, in the Chair.

DR. VAN WART read a paper entitled: *A Case of Gumma of the Brain, with Extensive Hemorrhages and Necrosis.*

(Abstract not furnished in time for publication. Paper will appear in full in bound volume of Transactions.)

DISCUSSION.

DR. PERKINS related a case of cerebral syphilis observed while he was serving as an interne in the Charity Hospital. The case was that of a man first complaining of feeling badly, later becoming a little unsettled in mind, not knowing where he was going or what he wanted to do. Numbness developed in his little finger and the ulna side of the ring finger. Gradually the paralysis developed in both arms and legs, ending in complete paralysis of one side. There was difficulty in speech and deglutation. There was no history of syphilis. Dr. Archinard was called in consultation, made a tentative diagnosis of cerebral syphilis and prescribed large doses of iodide of potash. The physician of the ward objected to this. The patient died from gradual failure of respiration and heart action and starvation. The duration of the disease was only a few weeks. The autopsy showed a cerebral tumor about an inch in diameter on the left side of the median line, in the region of the corpora quadrigemina. On microscopical examination it proved to be a gumma.

DR. LEBEUF: In 1898, a male, 35 years of age, good habits, bookkeeper in a drug store, when ten years prior had had a doubtful case of syphilis, for which he was under treatment for six months.

On coming to the office the patient complained of severe headache, which the doctor attributed more to diminished elimination and for which he prescribed phosphate of soda, vichy and liquid diet, phenacetin and caffeine. The next day he was called to see the patient, whom he found completely paralyzed, and then the first physician who saw him made the tentative diagnosis of embolus. For two days he closely observed him, and not being entirely satisfied with the diagnosis, asked Dr. Archinard to see the case with him, they both agreeing to placing the patient on a vigorous anti-syphilitic treatment, which ended in a complete disappearance of the paralysis and a gain of 40 pounds in weight.

DR. NELKEN considered cerebral syphilis amenable to treatment unless great destruction of the cerebral tissue had been wrought prior to the inauguration of the treatment. He had seen apparently hopeless conditions readily yield to large doses of iodide of potash. Though he had not seen any statements to the effect, he was under the impression that the iodine in iodide of potash coming in contact with the starch of food in the stomach, would be converted into the iodide of starch, which was not soluble; therefore, he always advised the administration of iodide of potash on an empty stomach, which in his experience had caused no nausea, and in this way did not require so large a dose. He had seen a case in a policeman who suffered with pains in the back, with paralysis of certain groups of muscles in the left leg, followed later by paralysis of the bladder. There was no history of syphilis, but a twelfth of a grain of mercury and 15 grs. of iodide of potash were given, which caused slight improvement in the condition. Later the patient went to Hot Springs and enormous doses of mercury were given and in a very short while he was completely restored to health. He did not believe that mercury should be eliminated in tertiary syphilis, and he thought that it was the treatment to pursue, it having a stronger tendency to produce fatty degeneration than did iodide of potash.

DR. ASHER wished to take exceptions to Dr. Nelken's theory as to free iodine being formed in the stomach from potassium iodide. The hydrochloric acid of the stomach is not powerful enough to do it. It requires an oxidizing agent, and, furthermore, were free iodine produced, it would attack the stomach, producing ulceration.

DR. LAZARD urged the necessity of using iodide of potash in obscure cases of cerebral disease.

DR. SALTER thought that the point of interest in Dr. Van Wart's paper was that the patient dated his loss of vision from the day after a sailing party, during which he had smoked a large number of cigars. A large quantity of nicotin taken into the system in such a short time will sometimes cause acute poisoning, with amblyopia. Whether this influenced the ocular condition or not, is interesting. Pressure, as well as syphilis, will cause optic neuritis, and this neuritis may exist a long time before the vision diminishes. We frequently find one eye blind without the patient being aware of it. Another interesting point in Dr. Van Wart's paper, is that there was no iritis or gumma of the iris.

DR. A. PETTIT believed in the use of iodide of potash in obscure cases, for it was a difficult matter in many cases to recognize cerebral and even other manifestations of syphilis. He had recently had an interesting case of a lady who suffered from a sore on the knee-cap. There was an ulcer about half the size of a silver quarter, with undermined edges, and pouting through this ulcerated opening was necrosed fibrous tissue. Upon consulting with Dr. Parham, the latter expressed the belief that it was a breaking down gumma. Antisyphilitic treatment was inaugurated and iodosyl powder and gauze used as a local dressing, which ended in a rapid cure. On anterior tibial region was a small nodule, not periosteal, which disappeared under treatment. He recalled having treated the mother of this case for a chronic sore leg and was under the belief that the daughter suffered from inherited syphilis.

DR. EUSTIS related a case that had occurred in one of the wards of the Charity Hospital while he was serving as interne. The man had had what was believed to be a chancroid, upon which being cured, the patient remained in the Hospital as a help. One morning, without premonitory symptoms, while carrying a pail he dropped dead. Upon autopsy a gumma three-quarters of an inch in diameter was found in the floor of the fourth ventricle, and it had ruptured into the ventricle.

DR. VAN WART, in closing, said that he had purposely omitted mention of the treatment, as he intended to only present the purely clinical and pathological aspect. Since the discussion had arisen, however, he wished to say that treatment had proved un-

availing. The success in any case depended on the amount of permanent destruction that had resulted from the growth of the gumma. In the case reported the non-success was easily understood from the postmortem appearance of the growth. He was unable to say whether the patient had been blind in one eye prior to July, 1902, but this, from the nature of the growth, seemed possible. It was well known that gummata might be present and give rise to no symptoms. The after neuritis was probably the result of increased intracranial pressure. As to the question of the relation of syphilis to endarteritis, he did not think we were justified in saying it was due to syphilis, from the therapeutic test alone. This question could only be definitely settled by the discovery of the cause of syphilis, which would give us some definite criterion to judge each case by.

DRS. LEBEUF and JOACHIM read a paper entitled

A Case of Typhoid Fever and Pneumonia, with Ear Complications as a Sequela of Being Buried Alive. Recovery.

This case is not reported with any intention of gratifying any morbid taste towards the sensational or the esthetic; if the gravamen of symptoms related is considered, it should teach our civil authorities a lesson of severe warning. Certainly hypnotic sleep has not yet been sufficiently studied by science to deduct exact reasonings or be applied in usefulness to mankind. The charlatan only seems to revel there, and the appetite for sensationalism is the only one which he has satiated as yet.

If human life can be trifled or played with by the first street fakir who has learnt to fix the entranced vision of some poor subject, or if the authorities of cities who should exercise paternalism and protection over the weak and unprotected do not do so, in this city, at least, let us warn them in the light of the experience I wish to relate that in Southern Louisiana, in New Orleans, the sub-soil moisture of our climate does not allow burial alive feats, or if the public which is the law in this land insists on such an exhibition, then at least let these exhibitions take place under the supervision of competent medical men.

Let the proper observations of hygiene and all prophylactic measures be taken to protect the poor unfortunate from exposure to dampness.

Permit me to freely attest the help that I have received in the treatment of this case, in the compilation of these very complete notes by the two internes of my hospital service, Messrs Espy M. Williams and Charles L. Eshleman.

Name—Marie Lamar (Rogers), 20 years old, born in Paris, France, but has spent first four or five years of her life in Germany. With the exception of a few months in San Francisco and Chicago she lived most of the next seven years at sea, her father being a captain of a boat called the Montauk.

Family History—Father was killed while on shipboard by an iron weight which fell from the mast and struck him on the head. Mother is still alive and has re-married.

Personal History.—According to patient's own statement she has been attacked by almost every disease of childhood, and a great many of adult life. A few years after coming to this country she says that she and her mother contracted yellow fever, it being in the year 1897, during the epidemic in New Orleans. Says that the fever caused a scum, as she called it, to form over her right eye and she was compelled to have the eye removed because it was affecting the other eye. The operation was performed by Dr. Bergerson in the Rathburne Hospital, Ottawa, Ill. At present she wears a glass eye.

Claims to have had typhoid fever when she was eight years old, in the Presbyterian Hospital, West Side, Chicago. Some years later also had pneumonia, measles and mumps. Claims also to have had scarlet fever and diphtheria together during the World's Fair at Chicago in 1893. When 15 years old she developed acute inflammatory rheumatism from which she suffered so much that she could not walk and was compelled to stay in bed for six or eight months. Was at the time living at Ottawa, Ill. Was treated by a number of physicians but did not seem to improve. Was finally taken to Denver and the bath treatment, which she received greatly benefited her.

Suffered from some more trouble, however, after leaving Denver, and going further north, which she ascribes to the change of climate and discontinuance of the bath. After a protracted illness however she was finally relieved and has not had a recurrence since. Has not, until the present illness, been sick since that time.

The first feats that she ever attempted, were balloon ascensions

and simple trapeze acts before the public at public gatherings. From that time she began doing small hypnotic feats such as sleeping in windows and being awakened after ten or fifteen hours. The first time that she remembers being hypnotized, she says, was in her uncle's show window in Illinois, when she was 15 years old. Says that she was a little frightened at first on awakening, but otherwise felt all right and her clothing was not wet or soiled in any way. She does not think that she has been hypnotized and exhibited in windows more than twenty-five times; she generally remained under the influence varying from one day to one week. States that her garments are not of oilcloth, but simply a loose cloth gown, and she is covered with a spread. She has never been at all wet when awakening from such a sleep. Her first underground sleep, as she calls them, was in Streator, Ill., where she remained three days. Followed this by traveling around and repeating the performance in such towns as Canton, Decatur, Farmington, Hannibal, Clinton, Missouri, and other small towns, each time, remaining under hypnotic influence a little longer than the previous. After becoming more accustomed to the work she began to visit larger towns and giving exhibitions there in turn; she visited Peoria, Marshall, Kansas City and Chicago, also went through Texas, exhibiting at Marshall, Texas, Texarkana and Oklahoma.

In Kansas City two years ago she was put under hypnotic influence and placed in a coffin supposed to have been rendered water-tight and lowered into a tank filled with water until the coffin was entirely submerged. This was done on Monday before Christmas, and she was awakened on Saturday of the same week. It was necessary to do this on discovery that water was leaking into the coffin. She states, that when opened, water was about 2½ inches in the coffin and her clothing was thoroughly saturated. In spite of the wetting however, she says that she was not sick at all, although she remained in bed the next day (Sunday). The following day (Monday) says that she was perfectly well and went driving with Mr. Lee with whom at the time, she was traveling as a hypnotic subject. Her late performance she says is the 50th time that she has been hypnotized and placed under ground; other towns that she visited being Terrell, Texas; Louisville and other cities in Kentucky, and also a number of cities in the state of Arkansas. During all the time which she has been engaged in

such work she says that she has never been awakened and found her clothing wet or in the least soiled from urine or feces or sweat. Her preliminary preparation consists in simply dieting herself by eating mostly eggs and drinking milk for three or four days previous, and also careful attention to her bowels and urine, by taking a purgative only if necessary. States that also after awakening she remains on liquid diet for several days and carefully attends to excretions if they are not normal.

The history of her last performance as a hypnotic subject in this city is as follows: She was placed under the influence on Sunday afternoon, Oct. 18, put in a coffin arranged with proper ventilation and lowered in a trench 6 feet deep, after the coffin was partially covered with dirt allowing sufficient room for exhibition. She remained under this condition for several days, when the city authorities took action and ordered that the coffin be placed above the ground for the reason that they deemed her condition dangerous to life from the exposure to dampness, etc. The coffin was accordingly dug up and placed above the ground and she was finally awakened on the afternoon of Sunday, Oct. 25, 1903, after having been under the hypnotic spell for one week. She states that the water was in the bottom of the coffin to the depth of about one inch, but that she herself and clothing were perfectly dry.

(This is her own statement, but some differences of opinion on the subject exist, I believe). She was apparently all right and in the same condition she says, as usual after being awakened from such a spell. It was not until the following week that she was taken sick. On Tuesday night, Nov. 3, she states that she and Mr. Gelder partook of some ice-cream at a confectioner's on St. Charles St., in the vicinity of the St. Charles Hotel, the exact place she does not know. This was about 10 p. m., after she had returned to her home she became violently ill between twelve and two o'clock in the morning of the same night, with cramps and vomiting and purging. The following day Wednesday and also Thursday she was better but her bowels continuing loose; she vomited occasionally, and still had slight pain in her abdomen at times. Friday morning she was about the same, but Friday night she got much worse and was forced to take to her bed from high fever and weakness. Says that she had no chill but the following day was somewhat delirious and continued so during Sun-

day. A physician was called and saw her on Saturday and prescribed, but without benefit. Monday she was no better and doctor was discharged and she was brought to the Charity Hospital by Mr. Gelder. In connection with what she says this ice cream eating was the beginning of her trouble; it might be of interest to say that Mr. Gelder with whom she had eaten the cream was also taken violently ill the following morning, vomiting, purging and cramps, and was forced to remain home from his work. He improved and was apparently well the following day.

The Clinical History.—When admitted patient showed following condition: Medium size woman of fair type, but of soft musculature, subcutaneous fat moderate in amount. Sclera slightly injected—one eye had been removed for alleged inflammation following yellow fever, probably gonorrhoeal infection. Tongue coated on dorsum, pointed and red upon margins and apex. Teeth in good order, but badly kept and gums soft. Facies good. Comfortable dorsal decubitus. Heart normal, lungs slight dullness, and increased vocal resonance at left apex (Infraclavicular), with cog wheel respiration. No alteration in tactile fremitus, not in normal intensity or respiratory murmur. No rales except at base of lungs, and these soft.

Occasional cough; liver normal in size. Spleen slightly enlarged upon percussion, but not palpable. Abdomen somewhat distended and slightly tender, tenderness not being confined to any one region. Occasional paroxysmal pains were complained of but were not severe. Kidneys showed albumen on Nov. 11, and later hyaline and granular casts with red blood cells. Acute int. nephritis. A scar on the left inguinal region indicates the removal of glands, perhaps a chancroidal origin; no other glandular enlargements being ascertainable. No rose spots. Temperature 101.4-5°; pulse 120, of good volume and regular rhythm, respiration movements 25, deep and regular.

Patient was given calomel, grs. 3 in two doses, not followed by a saline, ice bag to head and abdomen. Strychnin gr. 1-30 by mouth every three hours during the night. Diagnosis of enteric fever confirmed on Nov. 12 two days after admission, by Widal's reaction. On the 12th rose spots appeared, three to right and one above umbilicus. Patient was in excellent condition, though temperature was fairly high, and the typhoid infection to all

appearance was rather of a mild character. No alteration in her condition took place until Nov. 15, in the evening, when she had a slight chill lasting three or four minutes, and respiration frequency rose to 35 per minute, pulse to 120. Physical examination at this time revealed a few crepitant rales over lower lobe (posteriorly) of right lung. Resonance, if anything, was slightly increased; and mustard plaster and flaxseed plaster was applied over affected area (one part mustard to five flaxseed), and was kept in situ until thorough hyperemia of skin had been induced. Her general condition at this time was very good, and no alarming symptoms presented themselves during the night. On the following morning complete consolidation of area previously indicated was found. Condition still good. Second cardiac sound at aortic space somewhat softer than before, but no indication of cardiac insufficiency was present. Pneumococci, diplococci, staphylococci and streptococci were found in the sputum. Widal's reaction again present; no malarial plasmodia. Condition unchanged until evening, when slight mental irritability was noticed, and pain in the left ear complained of. Stationary then until the evening of November 17, when respiratory movements increased to 40 per minute and respiration became very much embarrassed.

The middle lobe of the right lung was now found pneumonic and a soft diastolic blow was heard over the base of the heart. Right heart appeared normal, tincture digitalis was now added to strychnine, ten min. and gr. 1-30 respectively being administered hypodermically every three hours. During the night violent delirium began, of a hallucinatory character and patient attempted frequently to get out of bed and was with difficulty restrained.

Pulmonary condition unchanged during the following day, November 18.

Abdominal distension now became very great, almost meteorism, and though stools were not increased in number, they became very dark and extremely foul in odor, delirium continued during the day and coma supervened during the night, passing off, and giving way to violent delirium on the following evening. At 12 noon, on November 19, patient appeared to be in extremis.

Extremities cold, and nails blue. Respiration 40 per minute and very shallow, lips blue and teeth and gums covered with sordes. Temperature 101 to 103. Right lower and middle lobes solid, pulse

110 and with no volume; the apex of the heart diffuse. Loud diastolic blow over area of pulmonary and aortic valves. Severe coma with occasional interspercements of talkative delirium; subsultus marked. Camphor was substituted for digitalis, grs. 2 being given hypodermatically in oil of sweet almonds every two hours during the rest of the day, and every three hours in the night. Delirium continued during the night, but not as marked as before.

On the following morning a slight improvement in the symptoms was noted, pulse now of fair rhythm, but not yet good volume. Heart's murmur still distinctly audible. No change in condition of lungs. Camphor gr. 2 was given every four hours during this day with strychnine gr. 1-30, both hypodermatically. From now on decided and rapid amelioration of all symptoms was noted. Pulse became a better volume, cyanosis disappeared, delirium no longer was present, and did not return at any future time, abdominal distension decreased, and stools, though frequent, were of a better character. Patient began to evince a strong desire for food, and to complain again of pain in left ear. There was still marked mental irritability.

Temperature fell to normal on the evening of November 22d, and convalescence from pneumonia and typhoid now began. Subcrepitant and other small moist rales were heard in pneumonic lungs on the following morning, and resolution progressed rapidly and without interference from that time on. Complete resolution had taken place by November 29.

On November 25 pain in ear became most intense and temperature ran during the evening to 100. Rupture of the membrana tympani occurred during the night with a free evacuation of pus and co-incident subsidence of pain. On November 28 pain in right ear began, continuing for three days, when other membrane was operated on by Dr. Joachim with a like result. The temperature continued, however, to rise in the evening, notwithstanding free flow of pus from both ears. Physical examination failed to reveal any cause for this; but response was quick to large doses of quinine bisulphate and an increase in rigidity of diet.

Treatment:—Hydrotherapy for temperature, ice bags being almost continually applied both to head and abdomen, and cold packs and tubbing being alternated. Cold was well born at all times. This treatment was persisted in throughout all the high

temperature except in the critical days of 19th, 20th and 21st, when no attack whatsoever on the temperature was made. Stimulation was given hypodermatically after the first four days in the ward, strychnin, digitalis and camphor being freely used. A mixture of Basham's Mixture $\frac{1}{2}$ oz. with acetate of potash gr. 12 was given every four hours during the whole of the illness. Alcohol was given freely in the shape of brandy, though with extreme care and trepidation, owing to intercurrent nephritis present also. Diet consisted exclusively of milk boiled or peptonized through the first two weeks of illness.

Drinking water was given in large quantities and with 5 gr. lithium citrate three times a day.

Cupric arsenite was given for four days after admission without apparent effect and was discontinued after that time, until later, when it was resumed.

On December 1 the temperature on the afternoon showed a rise to about 102 to 103 degrees, with fall to nearly normal in the morning. Scattered moist rales could be heard over both lungs, and evidences of old pneumonia detected. Subcrepitant and crepitant rales still present, and prolonged expiratory murmur also present, at left apex of left lung, upon which diagnosis of phthisis pulmonalis had been made. Patient was exceedingly deaf and had purulent discharge from both of her ears.

Complained occasionally of abdominal pain, but her bowels were in fairly good condition, and she was certainly improving slowly, except for the condition of her ears, which were being looked after by Dr. Joachim. At times she was quite rational, while at others she did not seem to be so and would frequently refuse to answer questions, cried bitterly when questioned or spoken to at all. After about a week or ten days, that is, towards the end of the second week in December, her fever subsided and she improved rapidly from that time; hearing was re-established slowly, her rationality returned fully, and she was allowed out of bed as soon as it was deemed prudent. Her lungs had cleared up remarkably and at the time of her discharge nothing abnormal could be found after a close critical examination. Especially noteworthy was the difference of what was considered almost positive evidence of incipient tuberculosis of the left apex, although in connection it might be

said that repeated examinations of sputum failed to show the presence of bacillus tuberculosis.

She had gained considerable weight, and was in apparently excellent health at the time of her departure. Treatment after December, when return of temperature showed again, consisted simply of stimulation with strychnine sulphate gr. 1-30 every four hours, and copper arseniate in gr. 1-96 doses, every four hours.

She had several abscesses on her legs and thighs, which were drained and allowed to heal gradually. Examination from the pus from these showed no presence of bacillus typhosus of pneumococci, but contained staphylococci pyogenes.

Liquid nourishment was insisted upon until sometime after the fever had been checked, when she was allowed light diet and gradual increase to full nourishment.

No other treatment other than looking after the bowels, i. e. using small frequent doses of calomel and saline laxatives pro re nata.

The second purpose of these notes, after relating this clinical battle and its peculiar etiology, is to call attention to the use of a drug, which I am afraid we have neglected in the last decade or so; it may be that this neglect has been caused either by our ignorance of it, or by the acceptance of the common impression that the chemistry of this drug is not always stable and reliable. Still, whatever the cause, the drug served a most important part in the saving of this life, and that at a critical moment, when we were apparently at the end of our therapeutic armentarium.

Camphor and Its Administration. This drug, which the old school of French Naturalists and Therapeutists of the end of the eighteenth and the beginning of the nineteenth century, like Raspail, Rabuteau, Trousseau and Velpeau used has for years lost in favor; surely no one can tell why. It is a splendid antiseptic, a superficial analgesic, an anodyne internally, antispasmodic and a decided carminative; it is an astringent also; it is one of the most diffusible of drugs; it has an important stimulating influence on the nervous system. In Wood's Practical Therapeutics it is stated that camphor stimulates the ear directly, and by widening the blood vessels and filling them with blood also causes centric depression, which may also be the cause of the anodyne effect. Hubien says moderate doses act directly on the heart

muscles as a stimulant. In Strumpell's Handbook of Medicine, "One part of camphor to four of olive oil is used and 7 to 15 min. are used of this solution every hour or two unless a strong cardiac stimulant is needed for rapid and energetic interference." We see in Shoemaker's *Materia Medica* that as camphor escapes from the system through the bronchial mucous membrane it is a useful remedy in chronic bronchitis, especially in the weak and the aged. Its stimulant properties also make it very useful in capillary bronchitis and typhoid pneumonia. Most serviceable also in typhus or typhoid fever, or in all eruptive fevers, because it strengthens the action of the heart. Professor Baelz, of the Tokio University of Japan, has it as a specific in typhoid fever, and uses it with marked benefit, to the exclusion of other drugs, in 1 to 5 gr. doses daily.

Of its sedative effect we all are aware, as all have had compresses of Eau Sedative placed to our foreheads in severe headaches; we know of Hope's Camphor Mixture, and a number of other preparations. Some of the much advertised secret formulas, such as Tichenor's Antiseptic, have, in my opinion, nearly always some camphor, and probably owe some of their popularity to the efficiency of this drug. The specialist uses it considerably, camphor tablets for rhinitis, and in sprays, for nasal catarrh and laryngitis.

The tree which produces it is a native of China and Japan and the East Indies; Borneo and Sumatra especially produce it. The natives place it pre-eminently above all their drugs. It was introduced in Europe through Arabia. It was used in India to counteract and to moderate the cerebral action of hashish and curare, and as a substitute.

Brunton calls it the ideal cardiac stimulant in febrile conditions, especially typhus and typhoid, where there is a tendency to failure in circulation.

The mode of administration is important. It is soluble only sparingly in water, I believe 40 gr. to 1 gal., soluble in alcohol and ether; it is also soluble in oils with slight heat. This oil of sweet almonds, non-irritating, pleasant, seems to be the ideal vehicle for it; we used a 10 per cent solution, which gave us gr 1 to each 10 min. As we have two or three puncture abscesses, next time I use it hypodermatically I will get the heating to the sterilization point, though a chemist has objected to that because he said it would

destroy some of the action of the drug. I have now used this treatment in two other cases of pneumonia, one of grippal pneumonia, hypodermatically with excellent results, and another a case of capillary bronchitis in a child six years old, a complication of measles; in this case I used it in powders with sugar of milk, given in plain milk, and it also had a very happy effect.

In the aged, who stand quinin so badly, I frequently used monobromate of camphor with the happiest results.

Permit me to say that one of my ancestors imported from the Island of Java, in 1847, the first camphor tree ever planted in Louisiana. He brought that tree with a shipload of East India sugar cane, thereby also introducing the ribbon cane in Louisiana.

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DISCUSSION.

DR. LAZARD thought camphor a valuable aid in severe septic infection. Olive oil washed with alcohol, to rid it of its free oleic acid, then drive off the alcohol by means of hot water baths, made a valuable vehicle. Two drachms of such olive oil with 20 grs. of camphor, of which 10 m. had been given by him in a severe case of sepsis hypodermically every three hours for 7 days, with excellent results, and with but one abscess.

DR. VAN WART said that he had always regarded camphor as a very valuable stimulant. He had seen it used extensively in the Montreal General Hospital, given in 10 per cent solution in olive oil, as a stimulant in cases of severe surgical shock.

DR. BLUM had seen camphor and ether used in cases of surgical shock at the Shreveport Charity Hospital. The injections were made deep. No trouble developed from it and he thought it prompter in action than strychnin.

DR. JOACHIM had for six or eight years used mercury injections in the form of a salicylate in $2\frac{1}{2}$ gr. doses dissolved in liquid

paraffin. He had experienced no unpleasant results from its use. It was injected in the form of an emulsion, which, however, was difficult to get prepared properly.

DR. EUSTIS was interested in the appearance of pus in the middle ear in Dr. LeBeuf's case. Yarrow had recently published a very interesting paper on the finding of albumoses in the urine where pus was present. In typhoid fever he thought its presence would be an aid in the diagnosis of deep-seated suppuration. He had had a case in his ward at the hospital in which albumoses had been found and at the time no suppurative process could be discovered, but later an abscess of the lower jaw manifested itself. He thought the routine examination of the urine for albumoses would point in many instances to the presence of pus when not suspected.

MEETING OF MARCH 26, 1904.

DR. MAGRUDER, President, in the Chair.

DR. STORCK read a paper entitled:

Some Facts Concerning Radium and the Use of the Intragastric Radiode.

(*Abstract.*)

It was in 1899, after much investigation, that Madame and Mr. Curie and Mr. Bemont made the discovery of the remarkable substance called radium.

Radium is obtained from uraninite or pitchblende, which yields only about three grains to the ton.

Besides the heat rays, there are three other kinds of radiation, known as the alpha, beta and gamma rays.

Prof. Lippman, of the Sorbonne, seems to have established the fact that radium has the power of continually generating heat without drawing upon any external source of energy. The most rational explanation of this phenomenon is found in the Thomsonian Corpuscle theory, which assumes the existence of particles of matter called ions, thousands of times smaller than atoms. These are thrown off with sufficient velocity to generate the force known as radio-active energy.

No sooner had the wonderful properties of radium become known than physicians began to speculate on its therapeutic value. Dr. John McIntyre, of Glasgow; Dr. Oudin, of Paris; Drs. Willy Meyer

and W. J. Hammer, of New York, and other physicians, report favorably on its use in lupus, cancer, rodent ulcer, etc. Soddy suggests that the emanations given off from radium bromide may be used in the treatment of tuberculosis of the lungs.

Dr. J. B. Shober has devised a radiode to be used in the nose, throat, vagina, rectum, etc.

Wishing to test the effect of radium in cancer of the stomach, I devised an instrument called the introgastic radiode. I have tested its use in only one case, with some apparent benefit.

A vote of thanks was extended by the Society to Dr. Storeck for having reviewed the subject of radium and bringing the subject in an up-to-date way before the Society.

DR. JACOBY read a paper entitled:

Hydrocele of the Cord, with Report of Cases.

(Abstract).

Dr. Jacoby thought that on account of its frequently being confounded with oblique inguinal hernia, it was worthy of some remarks. It is due to a serous exudation in an unobliterated portion of the processus vaginalis. There are two varieties—the funicular and the encysted. In the former the funicular process is closed below only, which allows the fluid to gravitate backward into the inguinal canal or abdominal cavity, while in the latter, the funicular process is obliterated above and below. In some cases they are circumscribed, while in others they involve the entire length of the spermatic cord or inguinal canal.

There does not seem to be any definite cause assigned for this condition. The most frequent is trauma, while gonorrhœa is considered by some to be a remote cause.

The diagnosis is not very difficult and is dependent on the fluctuation, elasticity and translucency of the tumor. By raising the pelvis while the patient lies on his back the tumor disappears, as the fluid flows back into the inguinal canal of abdominal cavity.

The three cases, which had been referred to me as hernias, were aged eighteen and seventeen. They had only noticed the condition lately and claimed that it had followed the lifting of some heavy article. One, however, just noticed it after the onset of an attack of gonorrhœa.

The treatment may be divided into three classes:

First. The use of a truss.

Second. The removal of the fluid with or without the injection of an irritant.

Third. The radical methods: (a) incision and drainage; (b) excision of the sac; (c) incision of the sac, everting it, and suture (suggested by Dr. Parham).

DISCUSSION.

DR. NELKEN said that the diagnosis of hydrocele of the cord was not in all cases easily made. He thought that the open operation was the operation of choice. The funicular hydrocele is sometimes patulous and much care had to be exercised against infection of the abdominal cavity, and it was in this type of cases that injection of irritating fluids was contra-indicated. In the encysted variety the treatment did not necessarily have to be so guarded.

DR. LAZARD noticed that the essayist had omitted to mention the one important cause of hydrocele. Lesions of the tunica vaginalis and their pathology had been likened to those of the pleura. It was the trend of the present times to regard the great majority of hydroceles as suspicious of tuberculosis, and he was inclined to believe that in Dr. Jacoby's cases, all being young men, that tuberculosis should be thought of and carefully excluded before a prognosis was given. One may have a primary tuberculosis of the tubes that would give rise to hydrocele, without any other demonstrable lesion.

DR. J. F. OECHSNER said that he frequently met with various types of hydrocele in his clinic for children at the Charity Hospital. The patulous funicular process deserved special consideration, for it was in this type of cyst in which injection of irritating fluid was most dangerous and contra-indicated. The danger was due, first, to the patulous process permitting the irritating fluid to escape into the abdominal cavity; and, secondly, notwithstanding the statement of authorities to the contrary in regard to adults, he believed that in children the use of carbolic acid and iodine injections might frequently cause suppuration and sloughing. Tapping of hydrocele in children, repeatedly performed, if necessary, always cured the condition. The matter of their wearing a truss was of prime importance. He had recently treated a child in which the cyst had been tapped six times without perma-

ment success, and was admitted to the ward for operation. The case remained in bed for several days, and when brought to the operating room, the cyst was found to have disappeared, due to, he believed, the escape of the fluid into the abdominal cavity through the funicular process, the position of the patient having favored its gravitation. The fluid in these cases does not escape at once and it seemed to him that there is frequently a valvular process near the internal ring which easily permitted the incoming of serum, but very slowly the outflow. It was in this type of cases that he believed that the truss was a wise measure. While in the encysted variety the open operation was quite simple, still it was impossible to tell in what cases the abdominal cavity would be entered, and no man should perform the open operation for hydrocele without being prepared to operate for hernia.

DR. SEXTON had recently treated a case of hydrocele produced by a neoplasm. For two years the patient had been unable to work without experiencing great pain and enlargement of the testicle. The testicle was removed and found to be cancerous by the pathologist. Just posterior to the testicle hydrocele was encountered, which was excised. Aspiration was the best method to adopt for diagnostic purposes. He had noticed that one of the surgical authorities had laid great stress upon the value of from ten to fifteen minims of carbolic acid in hydrocele of the tunica vaginalis; also tincture of iodine in from 2 to 3 drachm quantities. This method he believed deserved more frequent trial. In the open operation he frequently brushed the surface of the hydrocele wall with the nitrate of silver stick. He related the case of an old man who refused radical operation for hydrocele, preferring to be tapped every five or six months, through which measure he was made very comfortable.

DR. CLARK spoke of a case that he had recently seen in Dr. Matas' clinic that forcibly impressed him with the necessity of great care being exercised in operating upon all conditions found in the scrotal and inguinal region. The case was that of an aged Italian giving a history of having noticed a swelling suddenly appear in his right groin while lifting, six years prior to the operation. Later the swelling in the groin increased in size and developed a doughy consistency. Before operation Prof. Matas mentioned the three conditions that might possibly cause such an appearance, first,

tubercular adenitis; second, hernia; and third, cyst of the hernial sac. Upon carefully incising the mass, tubercular glands were found in large number. After carefully dissecting away the glands, a cystic hernial sac was detected and subsequently, upon opening the sac an epiplocele was encountered. This case served to illustrate how important it was for all operators in this region to proceed with great care, for the tubercular glands in this case would most probably have deceived most operators, causing them to recklessly proceed, which, if it had been done, would have ended seriously. It was an interesting condition in this case to note that all the conditions mentioned as being a cause for the swelling was upon operation found to exist.

DR. JACOBY, in closing the discussion, said he had looked up the literature, but that he had found nothing of value on the etiology of hydrocele, and that he did not agree with the views expressed by Dr. Lazard, that there existed a close relationship between the pathology of hydrocele and that of the pleura. He could see no reason to believe that his cases of hydrocele were of a tubercular character. He did not believe in working in the dark and favored the open method of treating cysts of the cord; and though not doubting the statement made by those favoring the injection of irritating fluid, personally he had seen many failures, and did not believe it a measure founded on sound principle. A general anesthetic was preferable to a local in the treatment of these cases.

DR. J. F. OECHSNER read a paper entitled:

Subacromial Dislocation of the Shoulder. Report of a Case.

While dislocations of the shoulder constitute from 40 to 50 per cent. of all dislocations, those of the backward variety are of comparatively infrequent occurrence. Stimson, in his statistical table, reports 287 shoulder dislocations out of a total of 705, at the Hudson Street Hospital, N. Y., 1894 to 1899, unfortunately not classified. Krönlein, in a table of 400 traumatic dislocations, reports, out of a total of 207 of the shoulder, 203 subcoracoid and axillary, 3 erecta and only one infraspinous. Stimson, in his textbook on "Fractures and Dislocations," says: "According to Malgaigne, the earliest recorded mention of this dislocation (subacromial), was in 1834, and when he wrote, in 1855, he could collect only 34 cases, of which he himself observed three. A very considerable number of cases have been recorded since that time (I found seven in the

Index Medicus for the years 1878 to 1882), and Panas' opinion that many escape recognition by being mistaken for a sprain or articular fracture seems fairly justified."

Stimson's seven cases from the *Index Medicus* makes the proportion hardly greater than that of Malgaigne. Out of a considerable number of shoulder dislocations observed while an interne at the Charity Hospital, I fail to recall one of the backward variety, and a search of the records of that institution for ten years does not disclose any. The comparative infrequency of the condition prompts the report of this case.

Mrs. C. D., 84 years old, quite stout, while crossing a bridge over a gutter, tripped and fell directly on the point of her right shoulder on a wood curbing; an abrasion on the outer side of the elbow elicited the information that she fell first on the elbow, which was probably in a state of adduction at the time, the position most conducive to the development of this form of dislocation. She walked into the house, her arm hung helpless by her side, the forearm and hand felt "dead," as she expressed it, and there was pain from the elbow to the shoulder. The accident occurred about 9 A. M. on February 24, 1904, and I saw the patient 3½ hours later. There was a moderate amount of swelling of the shoulder, some pain upon manipulation and careful examination elicited the characteristic symptoms, absence of the head of the humerus from its socket, loss of rotundity of the shoulder, and prominence of the rim of the glenoid fossa. The shoulder was full behind and the head of the humerus was found immediately under the acromial process.

Different manipulations failed to reduce the dislocation and reduction was attempted by putting the patient on the floor and making traction directly forward on the arm, letting the body act as a counter-extending force. This occasioned considerable pain and was discontinued. Reduction was finally easily effected by making traction with the hand in the axilla directly outward, thus disengaging the head from the acromial process and at the same time thrusting the elbow, which represented the lower end of the humeral lever, backward, thereby throwing the upper end of the bone forward and into socket. A posterior figure of 8 bandages was applied and allowed to remain on for a week, at the end of which time the patient was able to use the arm, save for some slight pain, as well as before.

DISCUSSION.

DR. MARTIN said that cases of acromial dislocation were rare; that he had never seen one. This was due to the fact, possibly, that such a dislocation was caused by violence and only when the arm was adducted and slightly forward. Reduction was effected by abduction and extension.

DR. CLARK said that though he had never seen the Stimson method applied practically it seemed to him that in this class of cases it would be an admirable method to adopt, especially in the aged, for it was so gradual in its effect and produced so little traumatism. He would like to know if any members had had any practical experience with this method of reduction, asking Dr. Maes had he seen the method applied during his service at Touro Infirmary.

DR. MAES stated that he had not seen the true Stimson method applied, but had used the pulley, which made gradual traction on the extremity (counter extension being made), which gradually exhausted the spasm and contraction of the muscles and tendons around the joint, the head of the bone slipping back into position.

DR. TEBAULT related his experience in a robust subject suffering from a subcaracoid dislocation of the shoulder. He made the usual mechanical effort to reduce the shoulder, but not being successful and being unable to use a general anesthetic, having none with him, he resorted to the hypodermic injection of an eighth of a grain of apomorphin. Violent emesis was produced, there was a general relaxation of all the muscular structure and of traction, the shoulder slipped back into position with great ease.

DR. LAZARD stated that he had seen Dr. Parham apply the Stimson method successfully in a patient at the Charity Hospital.

DR. JACOBY had seen Dr. Bloom use the method in which the arm was held in extension against the side until the muscles became relaxed and then with a sudden flexion of the forearm and an inward rotation of the arm, reduced dislocations of the shoulder very successfully.

DR. OECHSNER, in closing the discussion, thought that Dr. Tebault had brought out a very good point by resorting to the emesis trick. In his case he had no table or any appliances by which to employ the Stimson method, but he found that the simple abduction, with extension and suddenly thrusting the arm back, gave very satisfactory results in this instance.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Mosquito.

The invasion recently of hungry hordes of vicious mosquitoes suggests that our perennial plea for an attempt at their destruction is timely.

Future generations at least will appreciate that the JOURNAL has done all in its power to foster scientific research concerning the pests, and to stimulate systematic efforts to destroy them. From the time of publication of the praiseworthy studies undertaken under the auspices of the Orleans Parish Medical Society, to the date of this number, in which we present the valuable paper by Professor Beyer, we have on numerous occasions referred to the subject, both from the purely scientific and the essentially utilitarian side.

Deeming the subject of sufficient importance, we feel it our duty to call attention to it over and over again. Should we succeed in impressing the medical profession, they in turn would find the way to influence the public.

Can you not, confrères, make your constituents realize what a nuisance mosquitoes are, simply as enemies to their comfort; how costly they are from the work lost and the expense caused by the malaria they propagate; what a serious menace to the lives of loved ones and to commerce and progress from the yellow fever they disseminate? Surely it would only be necessary to make the people see and feel all this in order to spur them to intelligent action.

The Orleans Parish Medical Society, which has already accomplished so much from the theoretical standpoint through its initiative and the good work of several of its members, could well take up the practical side of the question.

The State Society might inaugurate some effort in the same direction at its annual meeting this month.

The City Board of Health of New Orleans is interested. Its Chairman, Dr. Kohnke, is to be highly commended for his labors in this field; his idea of enlisting the aid of the school children is ingenious, but reinforcements are needed, allies are wanted.

The medical profession of this city and of the State is the only power which can educate the people on this all important question and enlist their forces for a successful if difficult campaign against the mosquito.

The press could and should be the doctors' most powerful ally, and we call upon our lay colleagues for assistance in this matter, which is of vital importance to their respective communities.

Regarded merely as a form of insurance against much physical discomfort, loss of labor, paralysis of business, inhibition of progress, and sacrifice of human life through a preventable cause, the expenditure of a large fund for the destruction or mitigation of the mosquito evil would prove a good investment.

Undergraduate Practitioners of Medicine.

Caspiana, La., March 29, 1904.

EDITORS—I have had several applications during the past three months from medical students who wished to practice under me during the summer.

I want your opinion, freely and frankly expressed in the matter as a guide for some of us who may be perplexed by the proposition in some of its relations to law and medical ethics.

A junior medical student wishes to assist me. As I live twenty miles from town, doing a country practice, can I take him as an assistant and have him to prescribe and make visits and *charge therefor as I do myself*? Do my practice, for instance, while I attend the State meeting?

Can I locate him 5 to 10 miles away, vouch for him to the people of the community and be his preceptor and consultant in difficult cases, and thus let him practice as a legally qualified physician, "under the shadow of my wing?"

What should be the attitude and duty of a legally qualified physician towards such a competitor?

You will please freely discuss the ethical and legal aspects of

the matter, as it may be of assistance to many country physicians throughout the State.

Faternally,

JOHN L. KIMBELL, M. D.

It is not difficult to dispose of the points made in this communication and these are so fairly put, they deserve fair reply.

The law of Louisiana is quite specific in directing that the practice of medicine shall be restricted to regular graduates of medical colleges fulfilling the conditions of time of study and requirements established by the Association of American Medical Colleges and that of the Association of Southern Medical Colleges.

Undergraduates are not permitted to qualify before the State Medical Examining Board, and licenses of a temporary sort are granted only to bona fide graduates.

With these premises there can be no need of holding the ethical question on any point. An undergraduate may not, under any circumstances, substitute a practitioner of medicine in the State of Louisiana without rendering himself liable to the law.

As an assistant in the office, or with a practitioner at the bedside, he may fulfill an office useful both to himself and to the preceptor, and here he would in nowise commit an infraction of the law as he, at no time, is responsible, as he does not administer treatment, employ means or prescribe in the case.

Some States, as Mississippi, allow anyone to practice medicine who passes the State examination, and no graduation is required, but in Louisiana this very point is directly covered and even to the point of defining what constitutes an infringement of the law.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, assisted by DR. C. J. MILLER, New Orleans.

DIFFICULTIES IN LABOR AFTER VAGINAL FIXATION.—Duhrssen has published in the *Berlin. Klin. Wchnsch.* Nov., 1903, a communication on this subject, of which an extensive ex-

tract appears in the *Jour. of Ob. and Gyn. of the British Empire*. He discusses the after results of the operation of vagino-fixation, more especially with regard to pregnancy and labor, and gives short notes of a second series of 49 cases, making with his first series, 79 in all, in which pregnancy occurred after this operation. Of these 79, five were only under observation during pregnancy, and in two abortion was induced on account of albuminuria and tuberculosis. In these 7 cases of pregnancy the development of the uterus appeared to be quite normal. In the 72 cases of labor one death occurred—a case of placenta previa with severe hemorrhage. This he does not ascribe to the vaginal fixation, but to a pre-existing catarrh of the internal organs which had led to a tubal pregnancy a year before, for which he had performed vaginal section.

Artificial aid was necessary in nine out of the 72 labors; in seven of these on account of such conditions as placenta previa, eclampsia, secondary uterine inertia, footling presentation with prolapse of cord, rigidity and deficient dilatation of the parts. Further, in one of these in which perforation was resorted to, marked cervical hypertrophy was present before the operation.

In the other case four deep incisions were made in the cervix, but the author naively explains in his table that this was not done on account of any strict indication for immediate delivery, but because he was called away to operate on a ruptured tubal gestation; had not this happened he would have used a de Ribes' bag.

In five cases the labor was lingering; in no case was there transverse presentation of the child. Nine children died, but the author does not consider any of these deaths in any way dependent on the consequences of the vaginal fixation, though among them is the case of perforation mentioned above. Except in one case following a twin birth, no return of the displacement was observed. Also these recorded cases show several instances where a preceding sterility or a one-child sterility has been cured after the operation.

The points on which the author lays stress are, first, fixation with a single silk worm gut suture, which is removed after six weeks; second, that it must be passed through the anterior wall of the uterus near its upper border; and third, that the opening in the peritoneum must be carefully closed. He considers that it is not the high fixation of the uterus, but the fixation of the

whole anterior wall of the uterus by means of several stitches, which leads to subsequent difficulties in labor.

Department of General Medicine.

In charge of DR. E. M. DUPAQUIER, New Orleans.

(Continued from April Issue).

NOTES ON TYPHOID FEVER.—Treatment.—As Broadbent says in the preface, perhaps the most instructive part of the series of papers is the juxtaposition of the four articles dealing with the treatment.

Moore (Univ. Dublin.), makes preliminary remarks in terse language which is worth reproducing. "*Sed quod prae ceteris animadverto, in nullo morborum genere, tanta opus est patientia, expectatione, cunctationeque, ad bene et feliciter mendendum, tanquam ad bene curandum febres mesentericas.*" So wrote the Italian physician, Georgio Baglivi, towards the close of the seventeenth century. His words are true for all time, and apply with special force to typhoid or enteric fever, for there is no other disease which so taxes to the uttermost the resources of the physician.

Of every turn in enteric fever, of every day or hour which marks its course, it may truly be said: "*Late anguis in herba.*" The attitude of the physician must day by day be one of "armed expectancy"—to borrow an expressive phrase given by Dujardin-Beaumez in 1889, to that form of symptomatic treatment which has also been called "the medication of indications."

Moore insists on the sanitary housing of the patient and reports to the point a case lying ill in an old badly drained house which improved when removed to the epidemic wing of the Meath Hospital.

He calls the attention to the relation of diarrhea to early purgation, emphasizing the fact that in many instances troublesome diarrhea is started by routine and unreflecting purgation at the beginning of the fever. It is of course desirable that the intestinal tract should be swept and cleaned at the outset of enteric fever,

but the process must be carried out with extreme caution, and all strong purgation should be "shunned like the plague" to borrow *Giorgio Baglivi's* expressive phrase. Moore then takes up antipyresis and says it is generally uncalled for. Looking upon fever or "pyrexia" in the light of a general or essential, and—within definite limits—a beneficial reaction of the organism to changes in metabolism and in the blood, due to the causative agent of the disease, let us beware how we meddle with pyrexia in enteric fever. The wholesale exhibition of the fashionable antipyretics is fraught with risk.

These drugs may serve a useful purpose when administered in small doses, they assuage the toxemic rheumatoid pains and allay cerebral excitement and invite sleep. But, pushed so as to reduce temperature, they imperil life. In the water-treatment alone have we a safe and certain means of controlling or even reducing body-temperature in the febrile state. He enumerates the various ways in which this method of treatment may be carried into effect. In exceptional cases, quinin in full doses 5 or even 10 grains repeated at short intervals, until from 20 to 40 grains have been taken—is a favorite antipyretic, especially with German physicians.

Moore now takes up the management of the bowels and intestinal antiseptics. Constipation is a troublesome feature and difficult to treat. The bowels should be opened with caution in the early stages of the fever. After all the eight-day castor oil in teaspoonful doses every 6 hours until effect, is safer than calomel. The bowels may be kept moving by a simple, or a turpentine enema. When diarrhea is present, diet should be revised. Chicken-broth may be thickened with isinglass, arrowroot, etc. Milk should be boiled and, when cold, given diluted with lime-water, saccharated solution of lime or peptonized. A good substitute is white-wine whey and egg-water.

As to medicines, may be employed: freshly-prepared chalk-mixture, to each half ounce of which may be added 10 minims of the compound tinct. of chloroform B. P. 1885, or if the patient is in pain a like quantity of tinct. of chloroform and morphin; salicylate of bismuth, an excellent remedy in the septic diarrhea of the sloughing stage; salicylate of quinin in 3 grain tablets or in 5 grain doses in cachets given right along from the beginning throughout, including convalescence, appeared to regulate the

bowels. But turpentine, one of the best all-round remedies in typhoid, given at any period, in 10 minim doses, every few hours, controls diarrhea and tympanites. Caution is necessary in the exhibition of turpentine in the presence of albuminuria, or when there is disease of the kidneys or bladder. Regarding intestinal hemorrhage, Moore advocates free exhibition of opium preferably in the form of hypos of morphin or with the usual ice-applications, Murchison's mixture. He also says that when the hemorrhage is profuse or continuous ice-water enemata and rectal injections of blood or of salt water, chloride of calcium 20 grains every few hours, adrenalin and cornutin will do good. All this is subject to criticism as we will see later on. Moore on perforation says that the treatment of this deadly complication is at best a forlorn hope. While he, of course, advocates the only treatment admissible, that is, the surgical, he does not seem to be over-sanguine in the results. Others and rightly so are more encouraging. Finally, Moore writes a chapter on diet in the closing stages of the fever. He truly says that the management of the convalescent enteric-fever patient in regard to diet is one of the most difficult problems in the whole range of the practice of medicine. He cites authorities whose opinions are that no solid food should be given for a fortnight after fever and diarrhea have ceased. Osler allows solid food when the temperature has been normal for ten days. Moore speaks of heart failure in convalescence, due to peripheral neuritis, as in diphtheria, and recommends the use of strychnin by needle as the sheet anchor in this emergency. Of course, the recumbent posture, absolute rest and constant watching are the rule. Embolic infarction of the mesentery may result, quickly followed by gangrene of the intestine, paralytic arrest of peristalsis and death. Moore in closing warns young physicians against the perilous error of adopting a routine treatment of typhoid, particularly in the matter of alcoholic stimulants. Great risk arises to many a fever patient from a fussy, nervous, over-zealous interference on the part of the physician. Avoid what has been well termed the "*nimia diligentia medicis.*"

(To be Continued.)

Department of Ophthalmology.

In charge of DRs. BRUNS AND ROBIN, New Orleans.

HALLUCINATION OF VISION.—The following instructive history is taken from a paper by Dr. Howard F. Hansell, of Philadelphia, entitled "Hallucinations of Vision," in the January 16 number of *American Medicine*:

As an illustration of the well-known fact that peripheral irritation may give rise to mental symptoms simulating the insanity of cerebral disease, I record the following case: In the spring of 1902 I was requested by Dr. Anderson, resident physician in the Insane Department of the Philadelphia Hospital, to see a patient under her care.

The patient, a woman of 25, was admitted to the hospital 2 months before. Her parents stated that she had been born blind, and consequently had received her education in a blind asylum. She had displayed evidences of average intelligence, and upon completion of her course had been placed in charge of the training of children in the school. After some years she was obliged to relinquish this position on account of violent pain in the head and delusional insanity. She became unmanageable, and was removed to the Philadelphia Hospital. I found a pale, emaciated, small woman confined to her bed and crying out during all her waking hours that her room was on fire and everything before her was enveloped in a bright red glare. This delusion was constant and never varied. The patient also appeared to be in great pain but whether physical or mental, could not be determined. Both eyes were injected, tender to the touch, sightless and atrophic. In order to relieve this possible ocular source of her delusion, both eyes were enucleated. The girl gradually became more quiet, until in a few days after operation, her mind regained its former clearness, and all delusions vanished. In a short time she resumed her occupation of teaching.

TREATMENT OF CORNEAL LEUCOMATA BY SUBCONJUNCTIVAL INJECTIONS OF BENZOATE OF LITHIUM.—Mr. Mazet, of Marseilles,

having noted that certain corneal leucomata were composed for the most part of calcareous salts, such as the phosphate and carbonate of calcium, conceived the idea of using a solution of benzoate of lithia instilled in the eye, with remarkably favorable results. This idea was improved upon by Mr. Olivieres, of Tartosa, who proposed to use the same substance in a 1% solution injected under the conjunctiva with a hypodermatic syringe. By this method of introducing the drug he expected to reach with greater rapidity all the layers of the cornea. Before trying it on the human subject he established the thorough innocuousness and the rapid absorption of the drug by experiments upon rabbits' eyes. In support of his contention he cites three cases in which the improvement in the vision and appearance of lesion was decided and prompt. The first case, a boy 15 years old, had multiple leucomata of cornea following repeated attacks of phlyctenular keratitis. His vision upon admission was 1-15. Five minims of a 1% solution of benzoate of lithia was injected under conjunctiva without pain. On following day no reaction and no pain. The vision was 1-10. Injections were repeated three times, once every other day, on day following last injection, vision had improved to 1-7.50. Ten more injections were made without additional improvement in vision. The second case, a lady aet 45, vision R. & L.=1-10, central leucomata adherens dating from the age of 16. Twenty injections were made, after the fifth V.=1-7.50 and great clearing up of leucomata. No further improvement from the 15 additional given.

The third, a young man aet 20. He has nebulae corneae visible only by oblique illumination. R. V.=1-10. After three injections V. improved to 1-5. Three more injections are made without any appreciable result. L. V.=1-6. After the fourth injection V.=1-3. From his experience with these three patients he formulates the following conclusions: 1. That the subconjunctival injections of benzoate of lithia bring about in a short time a clearing up of corneal opacities and a decided amelioration of vision. 2. In the three cases mentioned the maximum of result was obtained after the third injection. 3. That subconjunctival injection of this substance are preferable to its mere instillation in view of the greater facility and promptness of its absorption and its more complete action upon all the layers of the cornea. 4. These

injections do not produce the least irritation and are easily borne by the most meticulous patient.—*Receuil D'ophthalmologie*, Feb., 1904.

Department of Therapeutics.

In charge of DR. J. A. STORCK, New Orleans.

THE ARTIFICIAL FEEDING OF INFANTS.—In the *Lancet* of September 19, 1903, Hutchinson publishes an article in which he deals with this important question, and then he recapitulates briefly the chief points which he has tried to emphasize:

(1). The first essential in the artificial feeding of infants is to have a definite plan upon which to go and to avoid hazard procedures. (2). Diluted cow's milk, condensed milk, and peptonized milk may be regarded as the positive, comparative, and superlative of digestibility respectively, and should be tried in that order until the digestive power of the child is suited, due regard being paid to the details of administration. (3). Periodic weighing of the child is the only test of the success or failure of the food selected. (4). In cases in which even peptonized milk fails to give good results great benefit often follows the administration of gray powder, even in cases in which there is no reason to suspect a syphilitic taint. (5). In spite of all care in the use of the methods which he advocates there remains a residuum of cases in which progressive wasting persists. Many of these seem to be babes who are unable to digest the casein of cow's milk in any form. (6). In such a case one should try to procure a wet nurse for the child, and failing that one must eliminate casein from the diet by making whey the basis of the feeding mixture. (7). The use of a patent food as the sole article of diet for a baby is rarely ever necessary so long as cow's milk can be obtained either fresh or condensed. (8). If a child is unable to digest much cow's milk it is often worth while to try the effect of adding a little starchy food to the diet even at an early age, for inability to digest milk appears to be sometimes accompanied by an unusual capacity for the conversion of starch.—*The Therapeutic Gazette*.

UROTOPIN IN TYPHOID FEVER.—Ernest Fuchs (*Deutsche Archiv für klin. Med.*), records the results of experiments undertaken with a view to ascertaining the value of urotropin in preventing bacteriuria in typhoid. Two points to which he devoted his attention were, first, how early the treatment was to be begun, and secondly, for how long the drug should be continued in order to certainly prevent the symptom. He found that out of 115 typhoid patients the bacteriuria only began twice during the febrile period; in other words, that it was, strictly speaking, a phenomenon associated with convalescence. It was inferred, therefore, that administration of urotropin should be commenced in the fastigium and continued well on through the convalescent period. The author compares two sets of cases. In the first series, 53 in number, urotropin was not administered; 15 of them suffered from bacteriuria. To these may be added 22 previous cases, in all of which this symptom was present, making a total of 26 out of 75; of these 26, in 12 bacteriuria was due to the typhoid bacillus. The second series was 40 in number; all received the prophylactic treatment with urotropin. In only one case did bacteriuria appear. The dose of urotropin employed was two grams per diem. The author concludes that he administration of urotropin in typhoid fever will certainly diminish the frequency of bacteriuria.—*British Med. Jour.* and *The Therapeutic Gazette*.

Department of the Ear, Nose and Throat.

In charge of A. W. DEROALDES, M. D., and GORDON KING, M. D.,
New Orleans.

PHOTOTHERAPY IN OZENA.—Dr. J. Dionisio, of Torino, reports a series of more than twenty cases of ozena treated by the violet ray, in which the results were worthy of note. Permanent improvement and cures were effected by long and repeated applications of the light to the nasal mucous membrane after a preliminary anemia of the parts was obtained by the use of adrenalin chloride. From 40 to 240 applications were required of one hour's duration.

The effect of the treatment was apparent from the diminution of fetid odor, hypersecretion of mucus, fall of the crusts and some headache and vertigo when the light was too intense. The action seems to be germicidal and stimulant.

The author has also obtained good results in other catarrhal affections of the nose and pharynx.

TREATMENT OF CHRONIC HYPERTROPHIC PHARYNGITIS BY SCARIFICATIONS.—Escot, of Toulouse, has adopted this method of treating that obstinate form of pharyngitis so often found in neuro-arthritic subjects, characterized by hypertrophy of the chorion of the mucous membrane, hypertrophy of the constrictor muscles, pain on swallowing, constant discomfort and hypersecretion. With an eight-pointed scarifier he attacks the soft palate and anterior faucial pillars and scarifies first horizontally and then vertically—allowing the bleeding to check spontaneously. Iodized phenol or zinc chloride solution is then applied.

Ten or fifteen days later the posterior pillars and pharyngeal wall are similarly treated. The good effects are appreciable at the end of one or two months.—*Archives Int. de Laryngologie*, 1903.

Louisiana State Medical Society Notes.

In charge of DR. WM. M. PERKINS, Secretary, 163 University Place,
New Orleans.

NEXT MEETING, NEW ORLEANS, LA., MAY 10, 11, 12, 1904.

OFFICERS—President, Dr. J. M. Barrier, Delhi; 1st Vice President, Dr. L. G. LeBeuf, New Orleans; 2nd Vice President, Dr. F. J. Mayer, Scott; 3rd Vice President, Dr. Oscar Dowling, Shreveport; Secretary, Dr. Wm. M. Perkins, New Orleans, Treasurer, Dr. M. H. McGuire, New Orleans.

COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St Charles St., New Orleans; S. L. Williams, Sec'y, 5th Cong. Dist., Oak Ridge; J. F. Buquoi, 1st Cong. Dist., Point-a-la-Hache; F. E. Tolson, 3d Cong. Dist., Lafayette; N. K. Vance, 4th Cong. Dist., Shreveport; O. M. Sitman, 6th Cong. Dist., Greensburg; C. A. Gardiner, 7th Cong. Dist., Bristol.
Chairman Committee on Arrangement, Dr. L. G. LeBeuf, New Orleans, La.

1904 MEETING.

Everything is rapidly being gotten in readiness for the greatest outpouring of Louisiana doctors ever witnessed. The largely increased membership is but a small factor in the unusual assurance of a large and successful meeting. The activity of many of the parish societies has aroused and maintained the interest in the

parent organization and a growing sense of the absolute necessity for every reputable physician to be in affiliation with the respectable element of his profession in his own State is leading many to take a more than passing interest in the success of this powerful agency for the unifying and uplifting of the medical fraternity. The failure of a State medical society would not simply be a matter of disappointment and chagrin to a handful of faithful officers and actively working members. It would be a reproach upon the mental and moral standing of the whole profession. Many of us know that for years the doctors of Louisiana have talked about the necessity for doing something to place their profession in this State upon that high plane to which it rightfully belongs. And for years a faithful few have labored untiringly to this end. But there has now come a keen realization that it is every man's duty and privilege and honor to have a share in this work, and the members of the State Society are beginning to understand that it is not sufficient to delegate all their authority to a few officers and then cheerfully dismiss and forget all personal responsibility. The meeting this year will be well attended, both in point of numbers and in regard to thoughtful interest in the welfare and workings of the Society. The program is rich in scientific interest and those to whom the papers and discussions are the only incentives for attendance will be amply repaid for coming. Important steps in perfecting organization methods and plans will be under consideration. And lest in the graver work of the meeting there be too little time for those pleasant renewals of old acquaintanceship which are just as essentially important as any other feature, the Arrangements Committee has planned for each day some social function. The railroads all over the State have given reduced rates, and have extended this privilege to the wives and families of members of the Society. An interesting collection of exhibits will be made a feature of the meeting. An efficient Bureau of Information will secure accommodations for any who care to write in advance. And whatever else can suggest itself to the New Orleans doctors which could make pleasant the stay of the visiting members will be done.

RAILROAD ARRANGEMENTS.

Every railroad in Louisiana will give the same rate for the meeting, and will sell tickets on the same plan. When purchasing your tickets to New Orleans pay full first-class fare and insist upon

the ticket agent giving you a certificate that you have purchased such a ticket. Present these certificates at the meeting of the Society and you will receive all other necessary information. A fee of 25 cents will be collected by the agent of the New Orleans Passenger Association for stamping these certificates. When leaving New Orleans these certificates will entitle you to purchase your return ticket for one-third the regular rate. No reduced rate on return ticket can be obtained unless you have a certificate, *which must be obtained when you purchase your first ticket.* These certificates are worthless unless signed in New Orleans by the Secretary of the Louisiana State Medical Society and also by the special agent of the New Orleans Passenger Association. Members can purchase tickets for their wives and children on the same conditions.

ILLUSTRATION OF PAPERS.

Those who have had to wait while interesting photographs of patients or specimens under discussion were slowly passed from hand to hand will appreciate the new method of illustrating papers which is offered this year. Anyone sending diagrams or photographs to the Secretary five days before the meeting will have his paper illustrated by stereopticon slides without further trouble or expense to himself. In this way the whole society can see at a glance the picture or diagram referred to by the speaker, and as these pictures can be flashed off and on the screen in an instant, it will not interrupt the reading of the paper.

ENTERTAINMENT.

Those registering at the 1904 meeting will receive printed invitations to the following:

First Day, May 10. Buffet lunch to the entire membership by the New Orleans Polyclinic.

Second Day, May 11. Lunch to the visiting members by the Chess, Checkers and Whist Club.

Third Night, May 12. Trolley ride and banquet at West End.

MEMBERSHIP.

The membership of the State Medical Society has grown from 490 to over 800 during the past year, and a number of new members are expected through Parish Societies which will affiliate between

now and May 9th. All of this increase has been through chartered Component Societies, and in addition, applications are being received from physicians living in parishes too sparsely populated for organization. Every member is requested to write to acquaintances in unorganized parishes and urge them to apply direct to the State Secretary for membership. These applications will be passed on by the council and voted on by the Society. The parishes from which applications can be made directly to the State Secretary are those which have no chartered parish society. (*See list below.*)

DUES.

Most of the members have responded to the various notices from State and Parish Treasurers and dues have been paid in; there are, however, still some who think that good intentions are all that is necessary to pay bills. The Treasurer has recently notified about twenty-five delinquents that they still owe for 1902 and 1903, and about 100 others that they still owe for 1903. According to the ruling of the Society itself, by special motion passed April 30, 1903, none of these gentlemen are entitled to any of the privileges of membership. *THE JOURNAL* is still being sent to them because it is believed that almost everyone of them expects to get out of debt to the Society, but none of these delinquents are in good standing, nor will any of them be permitted to register at the coming meeting until all delinquencies have been settled. Furthermore their names will be removed from the roll and they will be formally dropped from the Society. This will carry with it dropping from the rolls of the chartered parish societies and the American Medical Association. A word to the wise is sufficient and the time to pay up is right now. Delinquent dues for the years 1902 and 1903 had better be remitted direct to the Treasurer, Dr. M. H. McGuire, 731 Carondelet street, New Orleans, as otherwise they may reach him too late to be properly credited. Do not wait to pay delinquent dues at the meeting. Delinquents will be dropped on the morning of the first day.

PARISHES CHARTERED UP TO APRIL 23, 1904.

Acadia, Ascension, Assumption, Avoyelles, Bienville, Caddo, Calcasieu, Claiborne, East Baton Rouge, East Feliciana, Franklin, Iberia, Iberville, Lafourche, Lincoln, Morehouse, Natchitoches, Or-

leans, Ouachita, Plaquemines, Pointe Coupée, Red River, Richland, Sabine, St. Charles, St. James, St. John-the-Baptist, St. Landry, St. Mary, St. Tammany, Tangipahoa, Terrebonne, Vernon, Webster, West Baton Rouge, West Feliciana and Winn. Total 36 parishes, six of which are chartered as Bi-Parish Societies, making a total of 34 Component Societies.

PARISHES ORGANIZED BUT NOT CHARTERED UP TO APRIL 23, 1904.—Bossier, Lafayette, Rapides, Vermillion.

PARISHES WHICH HAVE NO ORGANIZATION SO FAR AS KNOWN ON APRIL 23, 1904.—Caldwell, Cameron, Catahoula, Concordia, DeSoto, East Carroll, Grant, Jackson, Jefferson, Livingston, Madison, St. Bernard, St. Helena, St. Martin, Tensas, Union, Washington, West Carroll. Total 19, of which Caldwell and Catahoula were at one time organized.

SOCIETIES CHARTERED SINCE PUBLICATION IN APRIL JOURNAL.

WINN PARISH MEDICAL SOCIETY.—Organized March 22, 1904. Chartered March 27, 1904. Charter members 9. President, Dr. I. E. Siess, Winnfield; Vice-President, Dr. H. A. Smith, Dodson; Secretary-Treasurer, Dr. A. M. Peters, Winnfield. Other charter members are: Drs. E. L. Drummond, Calvin; C. M. McCain, St. Maurice; J. H. Pankey, Dodson; J. B. Parker, Sikes; J. J. Peters, Winnfield; B. H. Talbot, Dodson. Meets first Tuesday of April and November.

LINCOLN PARISH MEDICAL SOCIETY.—Organized April, 1902. Charter members 9. Chartered April 16, 1904. President, Dr. Robert Roberts, Ruston; Vice-President, Dr. S. A. Poole, Simsboro; Secretary, Dr. S. L. White, Ruston; Treasurer, Dr. R. F. Harrell, Ruston. Other charter members are: Drs. A. DeSeay, Ruston; Wm. S. Kendall, Ruston; J. S. McBride, Ruston; S. P. Smith, Dubock; J. D. Tuten, Ruston.

CALCASIEU PARISH MEDICAL SOCIETY.—Organized October 30, 1903. Chartered April 19, 1904. Charter members 16. President, Dr. A. J. Perkins, Lake Charles; Vice-President, Dr. C. L. Richardson, Lake Charles; Secretary-Treasurer, Dr. T. H. Watkins, Lake Charles. Other charter members are: Drs. D. A. Berwick, Jennings; J. Z. Barnett, Bon Ami; J. H. Ford, Vinton; E. R. Gandy, Westlake; D. C. Iles, Vinton; C. P. Munday, Westlake, and

Drs. E. L. Clough, W. L. Fisher, G. Kreeger, J. G. Martin, V. A. Miller, A. H. Moss, A P. Stewart, Lake Charles.

AVOYELLES PARISH MEDICAL SOCIETY.—Organized March 25, 1904. Chartered March 29, 1904. Charter members, 23. President, Dr. C. J. Ducoté, Cottonport; Vice-President, Dr. W. S. Branch, Bunkie; Secretary, Dr. E. S. Matthews, Bunkie; Treasurer, Dr. E. Regard, Mansura. Other charter members are: Drs. L. C. Tarleton, W. F. Couvillon, S. DeNux, E. DeNux, Marksville; H. T. Lemoine, B. J. Lemoine, Cottonport; T. J. Perkins, Redfish; T. A. Roy, G. L. Drouin, Mansura; G. R. Fox, J. H. Boyer, Moreauville; D. B. Davis, E. G. Sewell, Bunkie; H. S. Olliphant, Gordon Morgan, Woodside; W. A. Quirk, Evergreen; E. Kiblinger, P. Jeansome, Plancheville; R. G. Ducoté, Bordelonville.

BIENVILLE PARISH MEDICAL SOCIETY.—Organized April 17, 1904. Chartered April 23, 1904. Charter members 12. President, Dr. F. M. Thornhill, Acadia; Vice-President, Dr. Pennington; Secretary-Treasurer, Dr. O. O. Hamner, Bienville. Other charter members are: Drs. A. J. Pennington, D. Atkinson, S. I. Calvin, T. H. Pennington, J. H. Givens, J. N. Ellis, H. D. Smith, W. W. Culpepper, A. B. Nelson, George D. Nieson.

WEBSTER PARISH MEDICAL SOCIETY.—Organized April 1, 1904. Chartered April 25, 1904. Charter members 7. President, Dr. R. W. Smith, Dubberly; Vice-President, Dr. R. C. Tompkins, Minden; Secretary, Dr. Shelby Martin, Minden; Treasurer, Dr. T. J. Vance, Minden. Other charter members are: Drs. L. Longino, Minden; S. W. Scott, Minden; J. G. Gladny. Meets first Mondays, April, August and December.

ADDITIONAL TITLES OF PAPERS RECEIVED SINCE LAST PUBLICATION.

“The Value of the Axis Traction Forceps in Certain Conditions; Report of Cases.” Dr. A. C. King, New Orleans.

Dr. H. D. Bruns will demonstrate a “Method of Correcting Squint.”

“A Contracted Bladder,” Dr. G. W. Gaines, Milliken Bend.

“Anatomical Anomalies,” Dr. S. P. Delaup, New Orleans.

“Argyrol in Gonorrhoea,” Dr. E. D. Newell, St. Joseph.

“A case of Sarcoma of Femur Disarticulation by Wyeth’s Method. Recovery.” Dr. E. D. Fenner, New Orleans.

“The Country Doctor and His Druggist vs. The Manufacturing

Chemist and His Drummer," Dr. H. L. Ducrocq, Lafourche Crossing.

"The Upper Respiratory Tract as a Source of Systemic Infection," Dr. Homer Dupuy, New Orleans.

"Some Remarks on the Treatment of Clubfoot by the Method of Lorenz; Report of Cases," Dr. J. M. Batchelor.

Paper by Dr. J. D. Bloom. Title not yet announced.

"The Necessity for Surgical Intervention in Deformities of the Legs," Dr. E. D. Martin, New Orleans.

"Spinal Analgesia in Genito Urinary and Rectal Operations," by Dr. Chas. Chassaing, New Orleans.

TITLES CHANGED SINCE PUBLICATION IN APRIL JOURNAL AS FOLLOWS:

"The Principles Underlying the Successful Treatment of Cystocele," Dr. C. Jeff Miller, New Orleans.

"Report and Exhibition of Cases of Cancer Treated by Mercuric Cataphoresis," Dr. Amédée Granger, New Orleans.

"Extrauterine Pregnancy; Its Diagnosis. Report of Cases," Dr. Isaac Ivan Lemann, New Orleans.

"The Antibleorrhagic Drugs in Gonorrhoeal Urethritis; The Question of Their Value," Dr. A. Nelken, New Orleans.

HOTELS AND BOARDING PLACES.

Rooms and board can be obtained in New Orleans at any price desired. Members desiring arrangements made for them should write to Dr. A. Jacoby, Chairman Bureau of Information, 163 University Place, New Orleans.

MISSING TRANSACTIONS WANTED.

The Archives of the State Society lack Transactions for the years 1878, 1881, 1882 and 1889, and will gladly pay a good price for copies of these years. Anyone who desires to sell or donate any of these is requested to write at once to the Secretary, as it is the desire to complete the file at once.

Medical News Items.

P. BLAKISTON'S SON & Co. report that during the past year they have sold 15,487 copies of GOULD'S *Medical Dictionary*.

These well known Publishers have sent out notice that after July 1, DEEVER'S *Surgical Anatomy* will be \$30.00 in half Morocco, and \$33.50 in Russian binding.

THE TWENTY-SECOND ANNUAL MEETING OF THE LOUISIANA STATE PHARMACEUTICAL ASSOCIATION will be held in this city on May 3, 4, 5.

THE FOLLOWING GENTLEMEN HAVE BEEN ELECTED INTERNES TO CHARITY HOSPITAL: Drs. W. B. Chamberlain, S. L. Thériot, C. P. Holderith, J. M. Bodenheimer, W. E. Sistrunk, J. J. Wymer, F. V. Grémillion and R. G. Holcomb.

THE COURSE OF THE TRAINING SCHOOL FOR NURSES AT TOURO INFIRMARY has been changed from two to three years.

THE BILOXI SANITARIUM was destroyed by fire April 4. The patients were safely removed to another building and much of the contents were saved. Dr. H. M. Folkes will rebuild at once.

A HALF FARE RATE will be granted to the A. M. A. meeting in Atlantic City in June. The Trunk Line Passengers' Association has made that concession and all other Passengers' Associations will probably do likewise. In the past the fare has been one and one-third.

THE TWENTY-NINTH ANNUAL MEETING OF THE AMERICAN ACADEMY OF MEDICINE will be held in Atlantic City June 4 and 6. The President, Dr. J. B. Roberts will read a paper entitled: "The Doctor's Duty to the State." Among the subjects to be considered are: "Modern School Methods in Keeping with Physiological Knowledge."

PERSONAL.—Dr. Quitman Kohnke, Chairman of the City Board of Health has returned from a short trip to Texas where he gave a series of lectures to the school teachers in the different cities on the "Mosquito."

DR. H. S. JOSEPH, of Melville, La., accompanied by his wife, spent a few days in the City last month.

MR. L. R. JAUQUET who has been so long connected with the Eye,

Ear, Nose and Throat Hospital, has been promoted to the office of Superintendent.

DR. T. F. RICHARDSON, formerly of this city, now with the U. S. Public Health Service, is located in Laredo, Texas.

DR. H. D. BULLOCK, who attended the New Orleans Polyclinic last year, has moved from Covington, La., to Montrose, Arkansas.

DR. H. P. COOPER has been elected to the chair of obstetrics and gynecology in the Atlanta College of Physicians and Surgeons made vacant by the death of Dr. V. O. Hardon.

DRS. H. C. RICE and S. P. KLOTZ were appointed assistant surgeons of Touro Infirmary, on April 12.

DR. T. F. ROBERTS, who has been at the N. O. Polyclinic and the Eye, Ear, Nose and Throat Hospital the past year, is located at Paris, Texas.

DIED.—Dr. N. H. Matas, father of Dr. Rudolph Matas of this city, died at the home of his son, St. Charles Avenue, April 13, aged 67 years. Dr. Matas, Sr., concluded a life of unusual activity, spent in the parishes of Louisiana and at Brownsville, Texas. He recently came to New Orleans, where his last days were spent with his attached and devoted son, to whom in his bereavement the JOURNAL extends profound condolent sympathy.

SEVENTH ANNUAL CONGRESS OF OTOLOGY.—The French Railroad Companies have granted a reduction of 50% to those attending this Congress at Bordeaux, on August 1st to 4th. Those expecting to attend are asked to register before May 15.

WE HAVE SEEN a circular recently distributed by the *Journal of the American Medical Association*, the striking part of which is a full page illustration of a grinning, flashily tinted, "Uncle Sam." The circulation of the *Journal* is given in lurid colors, and the whole thing would do credit to the yellowest of yellow Journals. It is hardly seemly coming from the dignified organ of a dignified profession.

THE ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF TULANE UNIVERSITY of Louisiana will take place on Wednesday, May 4, at 11:30 A. M., at the Tulane Theatre. The address will be delivered by Prof. C. Alfonso Smith, now of the University of North Carolina, but, until recently, of the Louisiana State University. The opening prayer will be made by Rev. Albert Biever, S. J.

THE NATIONAL CONFEDERATION OF STATE MEDICAL AND EXAMINING BOARDS will hold its next meeting at Atlantic City, N. J., Monday, June 6, 1904.

THE LOUISIANA STATE BOARD OF MEDICAL EXAMINERS will hold its regular semi-annual meeting May 6 and 7, at Tulane College.

THE AMERICAN NEUROLOGICAL ASSOCIATION has fixed the time of its meeting at St. Louis for September 15, 16 and 17; and this will be immediately followed by the sessions of the various medical departments of the Congress of Arts and Sciences, beginning September 19.

THE SEVENTH ANNUAL MEETING OF THE AMERICAN GASTRO-ENTEROLOGICAL ASSOCIATION will be held at Haddon Hall, Atlantic City, N. J., June 6 and 7, 1904.

THE LOUISIANA STATE MEDICAL SOCIETY has had an increase during the past year of over 320 new members.

THE TEXAS STATE MEDICAL SOCIETY was organized last year, at which time it had a membership of only 386; at the present time the members number 2,200.

AT THE MISSISSIPPI STATE MEDICAL ASSOCIATION, held at Jackson, April 19, 20 and 21, Dr. T. J. Mitchell was elected President; Dr. J. J. Haralson, Secretary, and Dr. J. F. Hunter, Treasurer.

AT THE ALABAMA STATE MEDICAL ASSOCIATION, held in Mobile, April 20, 21 and 22, Dr. C. C. Jones, of Eastlake, was elected President, and Montgomery was selected for the next place of meeting.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

International Clinics. Volume IV. Thirteenth Series, 1904. J. B. Lippincott Company, Philadelphia.

The closing volume of this series is a remarkable one. The general practitioner who looks to works like the I. C. will find in Treatment and Medicine enough to keep his mind busy and set it thinking for the good of his patients and of himself. Surgery and the other branches are not lacking of interest for the specialists. A very good publication, the I. C. should be encouraged in the maintainance of the high standard it has always endeavored to reach.

E. M. D.

Obstetrics for Nurses, by Jos. B. DE LEE, M. D., ETC. W. B. Saunders & Co., Philadelphia, New York and London, 1904.

This book on nursing of obstetric cases is arranged more as a text-book than as one of lectures on the subject of which it treats. It will certainly prove itself as useful to the young practitioners of medicine as to the nurses. It contains detailed descriptions of the various phases of obstetric nursing, a good smattering of what occurs during labor, careful instructions to the attendants, wise directions as to the care of the infant, a good diet list, and a fair glossary. It is really one of the most complete works of obstetric nursing yet offered.

MICHINARD.

Publications Received.

Lea Bros. & Co., Philadelphia and New York, 1904.

Progressive Medicine, Edited by Dr. Hobart Amory Hare, Assisted by Dr. H. R. M. Landis.

A System of Practical Surgery, by Prof. E. Von Bergmann, M. D., Vol I.

Surgery of the Head, by Drs. William T. Bull and Walton Martin.

A Manual of Clinical Diagnosis, by Dr. Chas. E. Simon, Fifth Edition.

G. P. Engelhard & Co., Chicago, 1904.

Commoner Diseases of the Eye, by Drs. Casey A. Wood and Thomas A. Woodruff.

Pain and Its Indications, by Dr. Edward C. Hill.

E. B. Treat & Co., New York, 1904.

International Medical Annual.

D. Appleton & Co., New York and London, 1904.

A Practical Treatise on Nervous Diseases, by Dr. F. Savary Pearce.

F. A. Davis & Co., Philadelphia, 1904.

A Manual of Clinical Microscopy and Chemistry, by Dr. Herman Lenzhartz.

Miscellaneous.

The Perpetual Visiting and Reference Book. (Dios Chemical Co.)

Medical Reorganization in Iowa.

Manhattan Eye and Ear Hospital Reports.

Reprints.

Exercise as a Mode of Treating Diseases of the Heart, by Dr. N. S. Davis, Jr.

Frontal Sinusitis and Ophthalmoplegia Interna Partialis, by Dr. H. Manning Fish.

Notes on the Test for Gastric Acidity; Multiple Visceral Lesion; Splenic Anemia, Notes of a Case; The Effervescence Test for Gastric Acidity; Painful Incarceration of Eleventh Rib, by Dr. A. L. Benedict, Buffalo.

The Great Value of Drainage and Ice in the Early Stages of Mastoiditis, by Dr. Sargent F. Snow, Syracuse.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR MARCH, 1904.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	2		2
Intermittent Fever (Malarial Cachexia)	3	2	5
Small Pox.....			
Measles.....	7	2	9
Scarlet Fever	1		1
Whooping Cough.....			
Diphtheria and Croup.....	4		4
Influenza	9	8	17
Cholera Nostras.....			
Pyemia and Septicemia	3	2	5
Tuberculosis.....	49	57	106
Cancer.....	15	3	18
Rheumatism and Gout	4		4
Diabetes			
Alcoholism	2		2
Encephalitis and Meningitis.....	10	3	13
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	18	11	29
Paralysis	1	3	4
Convulsions of Infants	3	2	5
Other Diseases of Infancy	23	5	28
Tetanus.....	4	2	6
Other Nervous Diseases			
Heart Diseases.....	37	22	59
Bronchitis	9	11	20
Pneumonia and Broncho Pneumonia.....	48	35	83
Other Respiratory Diseases.....	8	4	12
Ulcer of Stomach.....			
Other Diseases of the Stomach	7		7
Diarrhea, Dysentery and Enteritis.....	14	10	24
Hernia, Intestinal Obstruction.....	1	1	2
Cirrhosis of Liver.....	5	1	6
Other Diseases of the Liver	2	1	3
Simple Peritonitis	1		1
Appendicitis.....	1	1	2
Bright's Disease	36	13	49
Other Genito-Urinary Diseases.....	4	2	6
Puerperal Diseases	5	3	8
Senile Debility.....	12	8	20
Suicide	3	1	4
Injuries.....	19	17	36
All Other Causes.....	27	19	46
TOTAL.....	397	249	646

Still-born Children—White, 31; colored, 17; total, 48.

Population of City (estimated)—White, 223,000; colored, 84,000; total, 317,000.

Death Rate per 1000 per annum for Month—White, 20.44; colored, 35.59; total, 24.45.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure	30.03
Mean temperature	66.
Total precipitation	4.12 inches.
Prevailing direction of wind, south.	

New Orleans Medical and Surgical Journal.

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Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints may be had at reasonable rates if a **WARRANT** order for the same accompany the paper.]

**The Annual Report of 1904 to Edwin A. Alderman, LL. D.,
President of the Tulane University of La., at the Annual
Commencement of the Medical Department, May 4, 1904.**

By **PROF. STANFORD E. CHAILLÉ, A. M., M. D., LL. D.,**
Dean of the Medical Department, New Orleans, La.

MR. PRESIDENT—The Medical Department originated in the Medical College of Louisiana seventy years ago and the graduates to this date number 3,739 in Medicine and 344 in Pharmacy.

During the forty-six years of my official service three notable events have occurred to diminish the number of students and thereby the resources and the progress of the college.

The Civil War extended its baneful influence over the life of this college for thirty years. During three of these years its doors were closed, because both its professors and its students deemed the armed defence of the South a higher duty than the cultivation of medical knowledge. For twenty years after the war, the students were not only impecunious but also few; in evidence of this, only about one-

fourth of the number of students attended the least favorable of these lean years when compared with the most favorable year before the war. Professors received the salaries of ordinary clerks, carpet-baggers and scalawags threatened, with hostile reconstruction-legislation, the life of the college; its maintenance was difficult, great improvements were impossible and it was not until 1889 that the number of students present in 1859 was restored to our college.

This restoration had been accomplished only four years, when the faculty substituted for the two-year course, that had been required of its graduates for fifty-eight years, the three-year course. There followed a reduction of about twenty per cent. in the number of students, and it required seven years to regain this loss.

This second restoration of the full number of students was attended by one more important forward step, the adoption in 1899 of the four instead of the three-year course. While all students entering the first year of a medical college were then required to have attended four annual sessions, in order to be graduated, yet all students who had attended one or two years of the three-year course were given to May, 1903, to complete this course. Hence, from 1899 to 1903 all graduates had completed no more than the three-year course, and in 1903 part of the graduates had attended the three and part the four-year course. The present is the first session in the history of our college that all graduates attended the four-year course, therefore, this course, initiated in 1899, is now at last fully established.

Ever since 1898, the present session of 1903-04 has been anxiously anticipated, because the number of students that might attend it would indicate whether the four-year course had been finally established in such wise as to insure progress in the future. The loss this session, for the first time since 1893, of all students of the three-year course foreshadowed fewer students and graduates at this than at the previous session; but it was hoped that the increase of the educational advantages and of the reputation of the college and the continuation of the prosperity of the Southwest would attract sufficient students to compensate for this loss.

The very gratifying result is that our medical graduates number ninety-one, nine more than in 1903—and that the number of students has been 450, twenty-four more than ever attended any previous session, and more than twice the number in 1885, when my service as Dean began.

The financial receipts have, however, but little exceeded those of the previous session and more than this excess has been expended in improving in many ways the educational resources of the college. Among these improvements, it deserves mention that the session has been lengthened from twenty-six to twenty-eight weeks; that the number of teachers has been increased so that the total number is now forty-five, and that the examinations have been more numerous and rigid than ever before. Hence it is very certain that the educational advantages of this session were never before equalled, and that every student has been well impressed with the fact that our college is a work-shop and not a resort for idlers.

The prolongation of the Medical course from three to four annual sessions was not attended by any very notable reduction in the number of students owing to the prosperity of our country and to the prudence with which this change was guided and slowly accomplished by the faculty. The result is the more notable when it is considered, on the one hand, that students are numerous attracted to the colleges whose fees for attendance and requirements for graduation are the least; and, on the other hand, that our college has maintained since 1892 the same fees, thrice those of some colleges, and higher than those of every other Southern and of all but a very few Northern colleges and, farther, that every year our examinations have been more numerous and rigid and our requirements for graduation more exacting.

To gain our present prosperity every member of the faculty has ungrudgingly expended time, labor and special knowledge, and while they enjoy justifiable pride in the satisfactory result, every one of them regrets that more could not have been safely done and rejoices that the future is now more firmly secured than ever and that, upon the veil that conceals the future, shadows are plainly visible of many improvements destined to contribute to the greater progress and usefulness of the Medical Department.

Rejoicing over the exceptional prosperity of to-day and the prospects of still greater prosperity should not permit us to forget the great debt of the present to the past. Many men, now no more, loved and honored here at home and distinguished abroad, gave to the Medical Department the devoted service and the highly skilled labor that maintained its life and increased its usefulness and reputation.

Prof. Albert B. Miles, M. D., gave more, for, in dying he testified to his devotion by a very useful bequest of \$10,000. Without the memorial building, erected for love and in honor of Prof. T. G. Richardson, M. D.—for twenty years Dean of the Medical Faculty—many of our educational improvements and much of our progress would have been impossible. Hence the debt of the present to the past is incalculable and all of this debt in service and most of this debt for money is due to past and present members of the medical faculty.

This year is very notable for a third financial contribution, exceptional in two respects. It is derived from the bequest of Mr. Alexander C. Hutchinson* who was neither a doctor of medicine nor a professor, and it so greatly exceeds in amount all previous contributions that the quarter of a million dollars now invested in our college, will be increased probably to a full million. Thus there will be invested in the Tulane Medical Department a greater sum than in any Southern and than in all but a very few Northern medical colleges. However, there are of the 154 medical colleges in the United States, several that have more millions than one invested, one of these has five and another has, or is reported to be about to have seven millions. So that if our Medical Department is to equal, in educational advantages, the very best colleges in this country and in Europe, still more money will be required. Thus, philanthropic millionaires, ambitious for New Orleans and the South, are provided with enviable opportunity to dispose of their wealth in such wise as would greatly promote the public health and thereby the public wealth and welfare, and would gain for them lasting repute in this world and generous consideration in the next.

In the mean time, if the Medical Department has grown to enviable prosperity on a quarter of a million dollars, how much more useful and prosperous should it become on four times this sum? Obviously the educational advantages should be so greatly increased that the best educated and most capable students would be attracted to it and that its graduates would be even more notable than heretofore for their ability to contribute to the common welfare. The responsibility of investing the Hutchinson bequest to the greatest educational advantage is a very onerous one, demanding the

*The will of Mr. Hutchinson, who died December 10, 1902, was dated November 20, 1902. The validity of the will was questioned in the courts by the relatives both of Mr. and Mrs. Hutchinson. The validity of the will was finally decided by the Supreme Court of Louisiana, April 25, 1904.

most careful consideration and the greatest wisdom of those on whom this burthen is imposed. Onerous though it be, it is welcome to all who hold my conviction that on medical education and medical research depend, in very large measure, man's welfare and his progress in civilization.

GRADUATES OF 1904—You constitute the nineteenth class, and you are part of more than one thousand and eight hundred graduates, whom it has been my duty, as the representative of the medical faculty, to greet on Commencement Day. It is a pleasure, as well as a duty, publicly to testify to your worth as men, your courtesy as gentlemen and your zeal as medical students; and it is a pleasure to congratulate you on the completion of your arduous task of four years and to welcome you as members of a profession unsurpassed for its services to mankind.

This day imposes on every one of you the duty of contributing to the usefulness and reputation both of the medical profession and of the college that has given you professional birth. Your discharge of this duty will not only benefit yourselves but will also justify the hope and the faith of your teachers.

I and every one of these have been constantly stimulated to greater efforts in your behalf by the conviction that whatever improvement of character, whatever addition of useful knowledge you might acquire through us would contribute to the public welfare; and all of us have gained new energy from the belief that this contribution would serve to make our own lives worth living and that the good thereby done would live after us. It is true that the evil done by men lives after them, but it is not true that the good is "oft interred with their bones." It is often unappreciated and often forgotten, but the good done by men lives after them as surely as does the evil. Rays of light, even though their source be extinguished, are diffused throughout the universe and thereby become invisible but they are not lost; and so it is with the discharge of every one of nature's forces.

If you have been stimulated, while here, to broader charity for man's frailties, to tenderer tolerance for his errors and to greater ardour in the acquisition of useful knowledge; and, if you have been taught to prevent disease and relieve its anguish, to restore the suffering to health and the dying to life; then your exercise of these virtues and of this knowledge, gained from your teachers,

will be disseminated throughout all of the many thousands to whom you will render service—and thus the good done to you by your teachers will not be “interred with their bones,” but will, in you, live after them; and the good you may do will live in others after you.

The ties that have bound you to your teachers and to each other will this day be relaxed and some of you, like some of your predecessors, may be separated to as great a distance as are Canada and the Philippines; but go where you may there will still be ties to hold us together, for, the best wishes of the members of the faculty and their earnest desire to continue to promote your welfare will attend you, and gratitude and self interest should bind you to your college as long as your lives may last.

Graduates of the Medical Department, friends of its faculty, my friends, I salute your class officially for the last time with the heart-felt hope expressed in the one word—farewell.

Primary Carcinoma of the Vagina. Report of a Case.

By C. JEFF MILLER, M. D. Professor on Operative Gynecology on the Cadaver,
New Orleans Polyclinic, New Orleans, La.

Carcinoma affecting primarily the vagina is so seldom met with that an instance of its occurrence in a woman of twenty-five years is considered worth reporting.

The woman was referred to me by Dr. Wm. Wunderlich, her family physician, who had examined the growth first about three weeks before sending her for surgical treatment.

She had been married two years and had one child, eleven months old. Her appearance suggested a nervous temperament and pronounced anemia.

Her early history pointed to nervous troubles which had improved considerably before her marriage. The menstrual history was negative.

Three months after her marriage she conceived. Three months later she began experiencing pain during intercourse, and later, coition was followed by a show of blood.

A slight discharge of disagreeable odor soon followed and increased as the trouble developed.

The pain and discharge were referred to a small ulcerated area located just behind the urethral opening.

Soon after the birth of her baby, about six months after the pain commenced, painful urination developed and gradually increased. Five months after the baby's birth, a decided hemorrhage followed sexual intercourse, after which all sexual relations were impossible on account of pain.

Dr. Wunderlich examined her first in October, 1903, and found a well defined, raised ulcer, larger than a fifty cent piece on the anterior vaginal wall just behind the urethral opening. The upper part of the growth was sloughing, bled freely when touched, and showed evidence of being the part first involved. The lower border of the growth was encircling the urethral orifice, and had already infiltrated the tissues enough to almost prevent the introduction of a sound. The subsequent history of the case showed the tendency of the growth to extend towards the vestibule.

The age of the woman rather precluded the idea of malignancy, but the appearance of the growth was so conclusive that its prompt removal was advised.

She waited over two weeks before submitting to the operation, during which time the growth made rapid inroads into the tissues. The inguinal glands were slightly enlarged and cachexia began to develop.

It was then decided that no operation other than a palliative measure was indicated. Under general anesthesia the entire mass was removed, together with a portion of the bladder wall, the anterior two-thirds of the urethra, the labia majora, and minora, and the tissues of the vestibule, including the clitoris.

Her recovery was uneventful. She controls the bladder without difficulty and the pain has disappeared.

Just how long she will be relieved remains to be seen.

A piece of the growth was examined microscopically by the Drs. Pothier and Lemann and pronounced carcinoma of the scirrhous type.

Carcinoma originating primarily in the vagina is rarely observed. It is usually met with as an extension from the uterus to the fornix vaginae, and next in point of frequency from the rectum, vulva, urethra, less frequently from the bladder, and rarely from metas-

tases. In 1900 Prior wrote that Friedel in 1896 had found about 130 cases of primary origin, and that in one of the Vienna Institutions of 5,341 gynecological cases 15 proved to be vaginal carcinoma—0.22 per cent. Martin had found 4 cases in 5,000 women—0.08 per cent. The highest ratio he found mentioned was that of Meyer, viz.—8 cases of vaginal cancer in 266 cases of cancer, or 3 per cent. Küstner's collection also showed a prevalence of 0.02 per cent of cancer of the genital tract. Hecht's statistics were somewhat higher. He found the percentage to be over one per cent (Kelly).

LOCATION.—It most frequently originates on the posterior vaginal wall, involving the upper third of the vagina. The latest statistics bearing upon the situation of the growth are those of Findley, who found that in 123 cases, 71 involved the posterior wall, 13 the lateral walls, and 16 were annular. Of Küstner's early collection (22 cases) mentioned by Breisky, the entire length of the vagina was involved in 4 instances.

There is a strong tendency of the disease when located in the upper part of the vagina to extend over into the posterior cervical lip; rendering it impossible at times to determine whether the vagina, or cervix was the point of origin. When there is a large cancerous area at the vault of the vagina, with an involvement of the outer surface of the cervix, which is continuous with it, the disease may, without hesitation, be stated to be vaginal instead of cervical (Kelly).

The posterior vaginal wall and rectum were involved in both of the two interesting cases reported by Prior.

AGE.—Peterson states that there seems to be a predisposition for carcinoma to attack the vulva of old women. The average age is older than with carcinoma of other parts of the genital tract. As a rule the vaginal growths appear between the ages of 50 and 60 years. In Fenger's collection it was most common in the 4th decennium. Findley mentions two cases developing at 20 years; Fenger, one case in a child of 9 years, another between 5 and 10 years, and still another between 10 and 12 years. Bland Sutton's cases were all past middle life.

EXCITING CAUSES.—So many cases have been found in women who have worn pessaries for long periods, that we must recognize an ill fitting pessary as a very potent exciting factor. Fenger

states in his exhaustive monograph that gravidity and childbirth undoubtedly exert a potent influence. Kelly, however, has found that heredity and trauma during childbirth have not been shown to be active, as in the case of cancer of the cervix. History of long standing leucorrhœa is noted in many of the records. Prolapse of the vaginal walls seems to have been an exciting factor in some cases. Fleck has reported a case in a nullipara of 43 years, and found records of 4 other cases occurring with procidentia.

SYMPTOMS.—Clinically, it behaves about the same as malignant growths of the cervix, or vulva. Hemorrhage, or slight stains, may occur early, if the woman is indulging in sexual intercourse.

Pain is variable. All observers have noted its absence in the early stages (Findley). K unstner found it absent in 50 per cent. of histories he collected. It is rarely present until the growth involves the paravaginal structures.

In determining if the growth is primary, the uterus should be carefully examined. Three observers have reported instances of implantation upon eroded surfaces in the vagina through the medium of a leucorrhœal discharge. Then, too, since we know more of the nature of chorioepithelioma it has developed that primary growths may appear in the vagina, and the uterus remain perfectly free from involvement. The history of the woman should be carefully studied, and if there is record of an hydatidiform mole having been passed, the search for syncytioma malignum should be thorough. The first symptom may be the appearance of a rectal or vesico-vaginal fistula. Pruritus is mentioned as a frequent and early symptom in many cases.

COURSE OF DISEASE.—The disease may progress slowly, but the rule is to extend rapidly and necrose early. The growth seldom attains a large size. It rapidly extends into the lymph of the connective tissue from whence the cells soon reach the retroperitoneal glands.

A fistula into the bowel, or bladder, occurs early, owing to the proneness to early sloughing. If the growth is situated low in the vagina the inguinal glands are involved quite early. The peritoneum is frequently involved in diffuse carcinoma, occurring more often than metastases to distant organs. In many of the cases the uterus becomes involved. Death usually occurs within two years. After the removal of the growth recurrence usually takes place at

the site of removal. Pryor mentions a case reported by Laurenstein, in which the growth recurred three and one half years later in the uterus. In both of Pryor's cases in which his abdomino-perineal technic was followed, the recurrence was in the pelvis, behind the bowel. When the growth invades the anterior vaginal wall the prospects are equally gloomy.

SURGICAL INDICATIONS.—The futile results following operative treatment are due to the difficulty of removing the entire growth. Usually the cases come under observation when only palliative treatment is indicated. When seen early, while the growth is movable, and the connective tissue uninvolved, extirpation should always be attempted. Just how much tissue, or what organs should be removed, is a matter of debate. If the growth is superficial and limited, it should be removed by the knife, not the cautery, for the tissues about the vagina can be freely sacrificed and approximation accomplished after large portions have been removed. Considerable portions of the bladder wall, or bowel, can be removed, and the parts sutured, as in operations for fistula.

To define just what is meant by palliative and radical treatment of the cases by various surgeons would be a difficult matter. In some cases, removal of the whole vagina with the cervix, or entire uterus, has been considered a mere palliative measure, while the same operation was considered by Fenger all that could be gained by the knife. At the time the above case was operated upon, I had not investigated the subject, and it occurred that probably I had not been thorough in my work. A review of the available literature, however, develops the fact that many surgeons have felt satisfied with doing even less.

Are the radical operations, described by Mackenrodt, Pryor and others, justified in the light of the ultimate outcome of the cases? Statistics are against them. Pryor's second case, in which the nodule was situated one inch below the cervix on the recto-vaginal septum was certainly a favorable case for a radical operation, and every one must admire the thoroughness of his technic of opening the abdomen, removing the uterus, ligating the internal iliacs, the obturator branches, and then, the resection of the bowel and vaginal septum, through the vagina. Yet, in seven months, a colpotomy was necessary, and she died in one year after the operation.

The indications in cancer of the posterior vaginal wall are about

the same as in malignant disease of the rectum, with exception of a slight advantage in favor of cases where the growth is situated on the posterior aspect of the bowel.

The work of Murphy, and the authorities collected by him, shows the favorable primary results of resection of the rectum per vaginam, and makes the indications strong for such a technic in these cases when the bowel is involved; but the ultimate histories not being available, it is still difficult to weigh the indications satisfactorily.

If the growth is situated on the anterior wall, as in the above instance, is the operation advised by Pawlik and Oviatt, and McGill in carcinoma of the urethra, of establishing a suprapubic fistula, and later removing the urethra and floor of the bladder indicated?

The early involvement of the vaginal lymphatics makes such a procedure quite doubtful. The operation has, at best, exceedingly limited field. If the connective tissue is involved laterally, or distant lymph glands show involvement, palliative treatment should be attempted. In such cases the galvano-cautery yields the best results. The parts should be frequently inspected and as often as new areas are detected the cautery should be applied.

Some cases of complication with pregnancy have been reported. In such an instance, if the vagina is contracted sufficiently to obstruct labor, or the parts so eroded as to cause serious hemorrhage, or impaction, the indications for Cesarean section are as plain as in malignant disease of the cervix.

NOTE.—April 22, 1904. As a further report six months after the operation: The patient improved rapidly for two months, gaining a few pounds in weight and presenting a better color. The growth reappeared ten (10) weeks after its removal as a small indurated nodule on the vaginal wall. The tendency has been to spread towards the cervix and the anterior vaginal sulci. As the ulcerated spots developed they have been cauterized, twice with zinc chlorid paste and then nitric acid. No beneficial application of cautery can be used on account of the thin vesico-vaginal septum. She has been examined every ten days in order that the growth may be removed, or cauterized, as soon as it appears.

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Clinical Reports.

Hysterical Hiccough of 12 Days Duration Cured by Faradization.

By EDWARD MCCARTHY, M. D., New Orleans, La.

M. F., aet. 17, white female, occupation housework. Family history—Father died of obstruction of bowels. Mother has had pneumonia and is of nervous temperament. Patient has never been seriously ill, with the exception of an occasional hysterical convulsion, which soon passes away.

April 4. She was attacked with a virulent hysterical hiccough with paroxysms every ten seconds, which continued until April 16. Household remedies were tried the first twenty-four hours without favorable results; her family physician was then called in and he administered anti-spasmodics and hypnotics without success. In turn six different physicians were called in attendancē; treatments resulting in the negative. She then applied for treatment at the various medical institutions of New Orleans and received no apparent benefit therefrom.

NEGATIVE TREATMENT.—*Nux vomica*, *capsicum*, chloroform, camphor, zinc valerianate, atropin, nitro-glycerin, chloral and the knee-chest position.

April 16.—I was consulted and a physical examination revealed normal organs. I thereupon applied a "William double cell Faradic battery," using the secondary current with the positive pole to the cervical region in the neighborhood of the 3d, 4th and 5th cervical nerves where the phrenic nerve makes its exit from the plexus, and the negative pole to the ensiform cartilage at the attach-

ment of the diaphragm, kept up Faradization for fifteen minutes which resulted in a sudden cessation of the paroxysms, which have not returned.

Two Cases of Myopia and Their Indications.

By DRs. BRUNS AND ROBIN, New Orleans, La.

The two cases of myopia following will illustrate the great benefit to be derived from the constant wearing of carefully determined lenses fully correcting the defect, and the evil results of neglecting this prophylactic and remedial measure. Nothing could be more unfortunate than the popular belief that "nearsighted eyes are strong eyes." All oculists now realize that myopia is a disease as well as a defect and the Americans, who are undoubtedly the most painstaking and exact refractionists, are almost a unit in believing that the constant use of a fully correcting glass, any astigmatism being especially carefully compensated for, begun as soon as evidences of short-sight are first noticed, is the best safeguard against the lamentable effects of this condition, which so frequently appear at about middle age. To this may be added that myopes, except those affected in the most trifling degree, should be re-examined about once a year and any change in refraction be met by a careful readjustment of the glasses. Such a reexamination should always include an enquiry into the state of the muscle balance. As the general practitioner has reached a firm apprehension of the relation between muscular and refractive errors and headache, so he should apprehend and disseminate these facts about myopia among the laity and thus increase his beneficence. It is in this way only that this knowledge can be diffused. It should be noted that case 1 is a poor stenographer of moderate education, who pinned her faith implicitly to her medical director, while case 2 was a lawyer of more than average sense and education, whose self-confidence in ignorance was probably his undoing.

Case 1—On March 18, 1904, Miss X., a stenographer, 38 years old, came to our office for the sixth time to have her glasses re-adjusted. She is myopic. We first saw this patient on Oct. 5, 1897, at that time her history was that she had been near sighted as long as she could remember and had worn ordinary glasses bought by herself from the shops. Examination shows V., o. u.,

5-200. She can not now submit to the use of atropin, but with R. & L.—4s V=20-30 fairly well. There is slight weakness of the int. recti muscles. So she is ordered, R. & L.—4s decentred so as to act as weak prisms bases in.

March 12, 1889—Miss X. returns and says that of late she does not see so well at a distance. With her 4s glasses V., R.=20-200; L.=20-200, poorly—R. with—7s V=20-30; L with—6s V=20-30. But a pair of —6s is more comfortable, she can read ordinary newspaper type through them with ease, and shows no weakness of the internal recti at any distance.

March 28, 1893—Her right eye is painful. The best glasses are found to be: R.—7s \odot —1c ax 180° V= 20-30; L.—6s.

August 20, 1901—R. E. again troublesome. The Javal instrument shows: R. 2 ax 180°; L. 1 ax 30°. We order: R.—6s \odot 1⁵⁰c ax 180° and L.—6s \odot —0⁷⁵c ax 30°, with which V=20-30 each eye.

March 24, 1902—We find the glasses can now be reduced to: R.—5²⁵s \odot —1⁵⁰c ax 180° and L.—5²⁵s \odot 0.75c ax 30° with which each eye sees 20/xx some letters.

March 18, 1904—Her glasses can now be further reduced to: R.—4⁵⁰s \odot —1⁵⁰c ax 180° and L.—4⁵⁰s \odot —0.75c ax 30° with which each eye sees 20-30 well, and the patient being now 38 she reads much more comfortably than with the former, stronger glasses.

Case 2, March 18, 1904.—Mr. T., a lawyer, aged 55, comes to the office complaining that about a week ago he discovered that he could not see with his L. E. The cornea of this eye is hazy-looking slightly “steamy,” the anterior chamber is deeper than its fellow, there is coarse circumcorneal injection—Tension of the eyeball=+1. The ophthalmoscope shows “descemetitis” (deposits on posterior surface of the cornea), and the vitreous full of floating opacities. The R. E. is normal in appearance—V. R. with—4s=20/100; L.= finger counting at 6 inches. R. E., under atropin, media clear; V. with—5s \odot —1c ax 90°=20/20 fairly. As there is no history of rheumatism, gout or syphilis the affection of the L. E. is evidently a general uveitis, the result of high, uncorrected myopia. He has never worn glasses; “could always read splendidly the finest type.” The L. E. is put under atropin for rest, and K. I. gr. 5, t. i. d. to be rapidly increased to the limit of toleration is given, highly diluted, internally. At night ungt. hydrg. ζ i, ext. bellad. ζ i (1-9 of the whole) is to be rubbed into forehead.

As an auxiliary, Turkish baths or the employment by his home physician of sweating by pilocarpin injections, are highly recommended.

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I. I. Lemann, M. D., Chairman.

Medicine and its Achievements.

By J. M. BARRIER, M. D., of Delhi, La.

ANNUAL ADDRESS OF PRESIDENT, READ AT THE MEETING OF THE
LOUISIANA STATE MEDICAL SOCIETY, MAY 10, 11, 12, 1904.

As provided by the Constitution and By-Laws of the Louisiana State Medical Society, it is the duty of the President to deliver an address at some time during the annual session on some medical or kindred subject. And indeed it has been duty only that has forced me to make the attempt for the pleasure of this occasion has long since evaporated in the preparation of this infusion.

It is not my desire that it shall have an hypnotic effect, but should you discover your eyes becoming dim and you falling in the arms of Morpheus I will most willingly excuse you, for one at home more interested in me than any one else lapsed into gentle slumber under its reading.

It is with no little embarrassment that I appear before you when I remember that I am the 25th President of the Society, and my predecessors have been men learned in the arts, sciences and literature, most of them professors and teachers of medicine of national reputation, and some orators of no mean repute. I can not expect more than that this address will be but a cheap imitation of the model set for me by my distinguished predecessors, and out of charity and generosity I would ask that you make no comparison.

I have been hampered in the selection of a subject. To select one with which I was familiar, you know more about it than I; and could I choose one which you knew nothing, I would know less.

But as this is a public occasion, and expecting a number of the laity to honor us with their presence, I have chosen for the subject of my address "Medicine and Its Achievements," in the hope that it might in some degree interest them, while to the members of the Society nothing new can be presented, but as the recital of deeds of valor and heroism in the defense of country kindles anew our patriotism, so the recounting of the thoughts and discoveries of medicine may incur our zeal and love for our calling and be a stimulus to press onward to still greater achievements.

The history of medicine had its origin with that of the human race, and its progress and development has been proportionate to that of human knowledge and human civilization.

The foundation of medicine lies deep in that soil of human knowledge from which arose all the sciences. As we take an extended view of its progress, we can trace it from its scanty sources in the most remote periods of society, augmented by the stores of Roman and Grecian literature, obscured by the darkness of the Middle Ages, and finally bursting forth in the copious and majestic stream of modern medicine. From its beginning to the present this stream has been fed by the rivulets of all the sciences, and in time it has freely contributed to them all and has added to all the arts of life and to the gradual progress of knowledge on all subjects connected with our existence and welfare. Disease is the heritage of humanity and death is the common lot of all; and man has ever been trying to relieve the former, and delay the inevitability of the latter.

A system of medicine and surgery has existed in every age and every clime; crude it may have been in the barbarous state and approaching a more rational system with man's own progress in knowledge and civilization.

The historical records of medicine among the ancients are scanty and meagre. Egypt was the first country in which the art of medicine was cultivated with any degree of success and had advanced so far as to become a distinct profession. It is probable that the priests of the Egyptians were the physicians and indeed this seems to have been the natural process of society, in its earlier periods, when the priests were the depositories of knowledge of all sorts, and when they confined it as much as possible to their own use, for the purpose of maintaining their influence in the community.

While among the Egyptians medicine had become a distinct profession, the system consisted in great part in the employment of incantations in magic. This has been in all cases the first step in the art of medicine, and its efficacy has been dependent upon the ignorance and superstition of the people among whom it was exercised.

Assyria may contest the claim with Egypt for the parentage of the arts and sciences, but their memorials are so scanty that it is conjectural as to what degree of excellence they had arrived. The priests of this nation, as in Egypt, possessed all the knowledge of medicine, which consisted of little more than the dexterous application of the arts of magic and such other means as tended to impress the people with a sense of their power over the operations of nature.

From Egypt we can trace the progress of medicine into Greece, in the remote and semi-fabulous ages of their demigods and heroes until it acquired the rank of science under the genius of Hippocrates. It is curious to note that with the introduction of medicine in Greece its progress is identified with the life and history of some great name. The first worthy of consideration is the name of Æsculapius, to whom is ascribed the merit of having devoted himself to the cultivation of medicine as a science and having made it a distinct object of pursuit. In such esteem was he held by his countrymen that, after death, divine honors were paid him. He was designated the "God of Physic" and temples were erected to him in various parts of Greece. And to this day all practitioners of medicine are called the "sons of Æsculapius."

The practice of medicine remained a considerable time hereditary in the family of Æsculapius, and his descendants received the name of Æsclepiadæ—they were priests of the temple, and these temples became a species of hospitals to which patients resorted from all quarters. While certain practices of a dietetic nature were enjoined, and measures conducive to temperance and cleanliness were practiced, and internal remedies were given, the priests of these temples relied in most part on magic and incantations, and sedulously kept up the system of rites and ceremonies, which had been handed down to them from still more ancient practitioners. They carefully preserved the sole management of the art over which they presided. The symptoms were recorded

on votive tablets and these half-priestly and half-physiologic caste of *Æsclepiadæ* compiled the data upon which the earliest generalizations of medicine as an inductive science was based. But the causes of the morbid state and the rational of treatment was not sought for. "The anger of a God was sufficient reason for the existence of a malady and a dream was ample warranty for therapeutic measures; that a physical phenomenon must needs have a physical cause was not the implied or expressed axiom as it is in this scientific age."

Centuries elapsed and the practice of medicine remained almost stationary in the hands of the priesthood.

About the sixth century before the Christian Era a spirit of improvement took place, and the genuine principles of philosophy made their appearance in Greece and among other topics, the powers and functions of the human body, the nature and cause of disease and means for their control.

Pythagoras may be mentioned as the first to give an impetus to the study of the various natural sciences. He is supposed to have dissected the bodies of animals, acquiring a certain acquaintance with anatomy, and gaining some knowledge of the structure and action of the human frame. After Pythagoras few contributed anything to improve medicine, until the arrival of the justly celebrated Hippocrates, who received from his contemporaries the title of "Father of Medicine," which has ever since remained. He effected a complete revolution in the practice and profession of medicine and introduced a system which may be considered as having laid the foundation for all its future improvements, and it may be confidently affirmed that the science of medicine is more indebted to him than to any single individual.

After Hippocrates, for nearly six centuries, there appeared no great name associated with medicine. About 300 years before Christ the School of Alexandria was established by the munificence of the Ptolemies, and who laid the foundation for the great Alexandrian Library. The science of medicine was cultivated in this school, and there for the first time was a human subject dissected, and we owe some very marked improvements to the professors of this school. This school for several centuries produced a succession of great men, who advanced knowledge and

prevented the decay of science and literature after the decline of the Grecian Empire.

The Roman Empire was extending her dominion and was laying the foundation of her future greatness and was given almost exclusively to war. Science of all kind was neglected, but especially was this true of medicine. Pliny tells us that for six hundred years Rome had no physicians, and in the language of Voltaire, "Rome for five hundred years had no physicians—their occupation was slaughter, and not the art of prolonging life." The first physicians in Rome were slaves. The celebrated Musee, physician to Augusta, was a slave who was freed and elevated to nobility. In the first Century after the Christian Era, there appeared Celsus, the Roman Hippocrates, contemporaneous with Virgil and Cicero. He is the first native Roman physician whose name has been transmitted to us. He is almost the first writer to treat on surgery and surgical operations, and some of the capital operations seemed to be well understood and frequently practiced.

In the next century there appeared Galen, the physician of Marcus Aurelius, and from his marvelous speech and healing was called the "Wonder worker," and of whom a recent writer said: "He acquired a name which for centuries was above every name, and even now stands pre-eminently illustrious."

Then came the "dark ages," that period of eclipse when human progress seemed to have come to an end, when all advancement in science, art and literature seemed doomed. Superstition and ignorance had taken possession of the whole civilized world. Rome had been overrun by the Northern barbarians and lost her former glory and power. Medicine, along with all science and knowledge, suffered the same fate, and for centuries there appeared but few names to shed even a ray of light in this dark and benighted period. To the monk, hidden away in his cloister, we are indebted for the preservation of medicine, "uniting in himself the twin office of intercessor with God and the healer of men."

This period of darkness seemed to be eternal, but at last the dawn of day was seen to be breaking, and with the revival of letters a new impetus was given to the pursuit of all sciences—medicine among them. In the 16th Century there appeared Vesalius, the first anatomist who we may justly say laid the foundation for modern medicine. From that time till the present what a galaxy!

Harvey, Hunter, Sydenham, Jenner, Morton, Simpson, McDowell, Sims, Virchow, Lister, Koch, Pasteur, and many others whose names will live as long as a civilized tongue is spoken, or as long as humanity is heir to death and disease.

THE ACHIEVEMENTS OF MEDICINE.

In the early morn of the 20th Century we behold a civilization before which Grecian splendor and Roman magnificence pale into utter insignificance; distance annihilated, the inhabitants of the remotest corners of the earth are near neighbors; the future is compressed into the present by the telegraph and the telephone; magnificent steamers plough the turbulent seas as easily as the crude dug-out the placid and peaceful streams of the interior; intelligence and education well nigh universal; the poor have the comforts of life; the workingman has luxuries that even princes a century ago could not afford; commerce has rendered possible the exchange of every country and every nation.

What part has medicine played in this great drama? What has medicine contributed to human progress and man's physical, mental and moral betterment?

As a social factor it enters into every relation of human life, and as an economic factor there is no calling or pursuit that escapes its influence.

The greatest achievement of medicine is the evolution of a rational and scientific system of practical medicine. Medicine has ever been permeated with empiricism and dogma, and has had to contend with ignorance and superstition. In the discovery of new truths and in the enactment of every measure for the benefit of mankind and in every effort for its own improvement, it has met the opposition of the selfish politician and the superstition and incredulity of an ignorant public. Theory alone governed medical men for ages. It made an early effort to free itself. The most brilliant epoch of Grecian history is marked no more immortally by the wisdom of Socrates, the histories of Herodotus, the tragedies of Achilles and the art of Phidias, than by the medicine of Hippocrates. This period represents the first endeavor to break away from the empiricism of the early ages. From that time on we find science and empiricism ever contending. The struggle still continues, but it is an unequal contest and science

is sure to be victorious. At no period of the world's history has scientific medicine been so aggressive, and in the beginning of the 20th Century the victory has been almost achieved. We see the vagaries of Hahnemann, the charlatanism and humbug of osteopathy and Christian Science, along with the "isms" and "pathies," gradually dissolving before the searchlight of truth and science. We will soon behold a school of medicine having for its foundation truth and science—the members of which, wearing no badge of sectarianism, whose motto is to be proclaimed by its noble deeds and altruistic life *in the service of humanity*.

The primary object of medicine is the relief of pain and the cure and prevention of disease. Has it accomplished the first? The whole civilized world, with one loud voice, acclaim "Yes." The fool has said in his heart, "There is no God;" the fool has said in his heart, "There is no good in medicine"—but racked with pain and fears of impending dissolution, his infidelity vanishes, and he, too, cries, "Go for the doctor, and tell him to come quick!"

Has medicine cured disease? While death is inevitable and the cemetery has its short graves and its long ones, no one is so skeptical as to deny, and under the sound of my voice there are grateful hearts that attest that their lives have been saved, a wife, a mother, been spared to loved ones by the watchful care and skill of some physician. The profession of medicine has sometimes been taunted with its failures, but can you mention any calling or profession without its failures and mistakes? The legal profession boasts of its learning and its enduring monument is the great men it has produced. In every case that is tried before judge or jury there are two sides and one side loses every time. Was there ever a law so enacted that some shrewd lawyer could not find a flaw? The Supreme Court of the United States, the most learned judicial tribunal in the world, seldom gives a unanimous opinion. The majority rules, and yet the dissenting judge is just as learned. With every high water some distinguished engineer makes an inspection of the levees, and the papers herald the facts that "Major So-and-So has made a thorough inspection of the levees and pronounced them safe and secure, and would stand." And yet the flood comes and some poor fellow sees the result of the labors of a lifetime making a "bee-line" for the Gulf of Mexico. A short time ago the inhabitants of St. Pierre, Martinique, heard a rumbling

sound from an extinct volcano; the people were alarmed, and a learned man of science was sent to make an examination and he reported all safe—"No danger." The world knows the consequences.

Comparing the results of medicine with other callings, the profession of medicine comes as near accomplishing its objects and purposes as any other.

By the discovery of antitoxin for diphtheria the mortality has been reduced in this disease from about 40 to 7 per cent. In Chicago, between October 5, 1897, and December 31, 1903, there were treated 7,435 cases with antitoxin, with 479 deaths—about 6½ per cent. Without antitoxin the percentage was 35.

Typhoid fever, one of the most prevalent diseases and constantly present in all centers of population, under improved treatment has been reduced in twenty-five years, in the hospitals of the world, from 20 to 35 per cent. to from 5 to 15 per cent. in its death rate. The average mortality of all diseases in the last fifty years has been reduced about 50 per cent. The discovery of anesthesia, in 1846, marks a most important epoch in history. If medicine had never made another discovery this alone would entitle it to the world's gratitude and homage. How many lives it has saved eternity alone will reveal. It has annulled the penalty placed on woman "in travail shalt thou bring forth the young." Chloroform has reduced the mortality in obstetrics more than all other means.

Anesthesia has helped mightily to develop surgery into its present state of perfection. As Americans, we may justly feel proud of our surgeons. It was an American who first performed ovariectomy; that has alone saved the lives of thousands of women. It is estimated that this operation has added 40,000 years to the lives of women in Great Britain alone and other countries in proportion. It was an American, Marion Sims, who devised and first performed an operation which is now practiced throughout the civilized world. Woman's great benefactor—"His name will be spoken in every tongue where a woman suffers and man sympathizes."

It is in preventive medicine that the greatest victories have been achieved. The noblest aim of the physician is to prevent disease. In this age of commercialism there are men racking

their brains to make a discovery or an invention to be patented for their own exclusive pecuniary reward; there are men spending their lives immolating self in the seclusion of the laboratory to discover something to exterminate disease and to be given to the world.

Beginning with the immortal Jenner and vaccination for the prevention of smallpox, down to the present, what contributions have been made to the world by the science of medicine in preventing disease! What has vaccination done for the world? "It has defeated in open conflict one of the deadliest enemies of mankind, and has put us upon lines of investigation which may yet rob all pathogenic organisms of their terrors. Before the introduction of vaccination smallpox at times would almost decimate the whole of Europe. It would seem that no argument would be necessary to prove the efficacy of vaccination, yet there are some who have no faith in it—even antagonizing it. The discovery of vaccination and its results is among the greatest achievements of any age, and it stamps Jenner as among the world's greatest benefactors. When the name of Hannibal and Napoleon shall have been forgotten, Edward Jenner will live on and on, and as years are added to years, there will be added glory and lustre to his name.

The finding of the mosquito as the cause of malaria and yellow fever must be recorded among the greatest discoveries of the 19th and 20th Centuries. This will change the geography of the world. It may never completely eradicate these diseases, but marvelous results have already been accomplished. In Havana, in 1901, reports showed that there were 20,000 different premises containing mosquito larvæ, and some time ago a similar investigation showed but 200. Havana has been literally converted into a health resort. A short time ago Major Gorgas reported that Havana was absolutely free from yellow fever, and would remain so, and in his words, "the sanitary rehabilitation of Havana is a monument to American science and energy." What has been accomplished in Havana has likewise been done in Freetown, in Africa, under British dominion. To make more impressive the importance of the discovery of the mosquito as the cause of malaria, Dr. Gardiner, in his address before the British Association, says: "Malaria, of all diseases of our tropical possessions, is the most important. It undermines the health of millions, and makes vast

regions which would otherwise be our richest possessions, almost uninhabitable. Every year in India alone it kills some 5,000,000 people—twice as many as cholera, smallpox, plague and other infectious diseases put together.” Says another, speaking of the malarial germ: “It has played a greater part in human affairs than the greatest general or politician who ever lived. There will be added to the commerce of the world millions and the richest and most fertile regions of the globe will be opened up to the Anglo-Saxon and his civilization. The discovery of the mosquito as the cause of malaria and yellow fever, along with sanitary measures, will make it possible for the construction of the Panama Canal, an engineering feat worthy of any age, and yet no member of the medical profession was worthy a place on the Canal Commission.”

I might at length go into the details of the discoveries of the causes of many infectious diseases which have been arrived at by Koch, Klebs, Loeffler, Frankel and Laveran, and many others. The bacterial cause of tuberculosis, typhoid fever, diphtheria, pneumonia, erysipelas, gonorrhoea, cerebro-spinal meningitis, dysentery, the plague, charbon, glanders and influenza has been discovered and proven, and as a result their spread has been lessened and their mortality lowered. The names of Virchow, Lister, Koch and Pasteur will be forever associated with the greatest and most brilliant achievements of medicine in the 19th Century.

To ask again, what has medicine accomplished? Dr. Parker, of London, estimated that smallpox has diminished 95 per cent.; deaths from fevers generally have declined 82 per cent.; from typhus fever 90 per cent.; from enteric fever 60 per cent.; from scarlet fever 81 per cent.; from phthisis 46 per cent.

Mr. Edwin Shadwick, as far back as 1878, stated to the British Scientific Association that both the sick and death rate had been diminished one-third by the practice of sanitary measures, and since then it has been reduced more than one-half.

Says another, in more beautiful and eloquent language than I can command: “It has lengthened life, it has mitigated pain, it has extinguished disease. It has explored, with amazing minuteness, the mysteries of man’s own being, has analyzed all the tissues of his body, and isolated the minutest and ultimate cells of which those tissues are composed, wherein are conducted the secret forces of those little cells that require the keen eye of the

organs and systems of wonderful adaption and design; and how in turn these organs and systems are combined to form the noblest work of God."

Led by Harvey it has discovered the vital fountain from which gushed crimson streams of blood that ramify and wind through all the labyrinths of the system, distributing life, warmth and food to its remotest parts. Guided by Laennec it has placed the ear to the chest and interpreted the vesicular murmur within where air and blood meet to exchange the gaseous elements with which they are freighted. Taught by that splendid mathematical genius of Henrique Helmholtz, it has sent luminous beams into the deepest and remotest recesses of the human eye, and revealing there a picture of bewitching beauty, has shown how disease may shut out those beams forever and leave all in eternal darkness, and how a steady and skillful hand re-opening a darkened eye, may achieve one of the greatest successes of the healing art. It has followed the waves of sound along the intricate paths they tread to sensitive chambers of audition, and learned the delicate mechanism of that acoustic apparatus, which can adjust itself to the faintest whisper, or protect itself against the loudest roar of artillery. Utilizing beautiful optical laws, it has illuminated the interior of the larynx and seen the precision and rapidity of that alternate advancing and receding tension and relaxation of the vocal cords which give to the human voice its tones of tender harmony or thrilling eloquence. And not content here it has ascended the dome of thought—the palace of the soul—and beheld the wonderful inhabitants of that royal mansion where dwells the king of all our thoughts, perceptions and volitions. Familiar with all these organs and systems when moving in harmonious order, that same science of medicine stands upon the watch tower and, like a faithful sentinel, sounds the first note of alarm at the approach of danger, and armed with the agents devised by its own fertility, is ever ready to send them forth on errands of succor. More, it has taught cunning to the hand of the surgeon to guide the keenest blade on its bloody, but efficacious mission and like an angel of mercy is able in the sleep of anesthesia to rob that edge of its pain and anguish.

What the world owes the science of medicine in fighting disease can never be estimated, but as an economic factor in the world's present commercial greatness, it deserves consideration. It is

doubtful whether the average citizen has ever associated medicine with anything but disease, and has ever for a moment placed a commercial value to it. Except when there is some acute disease for the physician to attend, by the average layman he is regarded as a drone in this hustling and bustling world. Were we to compute the commercial value of the profession of medicine to the State, the amount would astound mathematic computation. There are about 1,500 physicians in the State of Louisiana and estimating that they each saved yearly six human lives that would be 9,000 lives; putting a commercial value of \$2,000 per life that would be \$18,000,000. It is safe to say that the average income of the Louisiana physician is not more than \$1,500, making \$2,250,000—leaving a balance of \$15,000,000 annually. Add to this amount the time saved by attention of the physician in shortening sickness and to pay the arrearage for the last twenty years would bankrupt the State. No other calling renders such services at such wages.

Commerce, agriculture, manufacturing, mining, and every commercial and industrial pursuit is indebted to medicine and its allied sciences.

This beautiful city now progressing along all lines by leaps and bounds, now the second largest port in America, and destined to be the largest in the world—owes more to the science of medicine than to any other factor or agency. After the terrible epidemic in 1878 this City was almost financially ruined, houses vacant, families decimated, loved ones gone—the cemeteries the abiding place of some of your best, noblest and truest citizens; mourning had taken the place of mirth, the future of your City and this beautiful Southland seemed indeed dark. She arose from her “sackcloth and ashes” and to-day her beauty, glory and greatness eclipse any former period. What saved your City? A system of quarantine was established, the product of the brain of a Louisiana physician, which system has become a model for the civilized world. The name of Joseph Holt will live in the hearts and affections of this people. Not waiting to cast a flowery garland on his bier, I take this opportunity on behalf of this Society and the profession in the State of Louisiana to express the acknowledgements of gratitude and appreciation of his loving and admiring confrères.

The wheels of commerce would stop in 24 hours were it not for the science of medicine in originating, perfecting and operating

the present system of maritime quarantine. The great steamships riding the waves, conquering the storms and tempests of the mighty ocean, distributing and exchanging the products of every clime, can not leave or enter port without its bill of health visaed by a medical man. The architect may plan a building, but its sanitary arrangements must pass the inspection of medical science. No immigrant can enter the country without the stamp of medical approval. The army and navy owe their efficiency to the surgeons' examinations. The life insurance companies—the greatest commercial institutions of the world, owe their very existence to the science of medicine and to the honesty, skill and knowledge of their medical examiners. What the chemist has accomplished in the last one hundred years would read like a story from the Arabian Nights. While the triumphs of chemistry along synthetic lines have been great—the triumphs of the analytic chemist have been equally great. The analytic chemist is protection against the fraudulent products of the synthetic chemist. Inspection of the food and water supply in any community is absolutely essential and is one of the most important functions of every Board of Health. The stamp of the Board of Health on your meat has saved you of many a sickness and the analysis of the water supply has saved many a city from an epidemic of typhoid fever.

The animal industry owes its present growth to veterinary medicine. The discovery of anthrax virus has as completely swept away charbon as vaccination has smallpox.

The great intellectual growth of our country and the general interest taken in education has been aided by the profession of medicine. One of the fundamental objects of the American Medical Association was the elevation of the standard of the physician and well has that object been accomplished in this country, for only a few decades ago our best medical colleges only required two courses of about four months each, and to-day all first-class medical colleges require a four years' course and each student is required to devote a certain time to laboratory work in bacteriology, pathology, chemistry and pharmacology. Not only has the standard in professional attainments been raised, but to enter the study of medicine an increased scientific and literary education is required. As the ultimate end of medicine is the prevention of disease and the enforcement of the strict observance of all sanitary laws,

a people must be educated. An educated people is the strongest ally the profession has in enacting and enforcing sanitary measures. And to accomplish its high aims and purposes, contends for increased educational advantage for the people, knowing that sanitation and hygienic regulations can never be enforced on an ignorant and superstitious people.

The profession of medicine has ever stood for morality. No one knows better than the physician the evil effects physically from the violation of the moral code. The profession of medicine is the exponent of personal purity and morality. To the stay of the demon, strong drink, it has contributed the most important part. By the scientific investigation of the effects of alcohol, it has added common sense and reason to the temperance fanatic. The W. C. T. U., and God bless them for their noble work, can count the medical profession, as a whole, as their strongest ally in this great work.

The profession of medicine in all ages has ever stood for the true, the beautiful and good, and its contributions to the enlarged humanitarianism of the age is one of its grandest and noblest achievements. With a broad spirit of Catholicity it knows no creed, no sect, no race! Its ear is open to the cry of humanity. "Am I my brother's keeper?" went reverberating down the ages for 4,000 years with no answer, save the echo and re-echo of its own question, until the "Star of Bethlehem" stood over the little Babe in the manger, and on that December morning there was rung out the most thrilling and joyful refrain ever sung by angels or men: "Peace on earth and good-will toward men." Next to Christ, the greatest Physician, and His teachings, has the profession of medicine contributed to the answer of that question. Heroes of our profession are dying every day. To-day our lives are spent in the cottage, watching over the little emaciated form, trying to bring life and health and save it to the bosom of its mother, to-morrow may be in the mansion of the rich, smoothing the pillow of the fair consumptive. There is no place in the "Hall of Fame" for even *one* of the profession of medicine, but the names of many of our profession will live forever, and their noble deeds and brilliant achievements will perpetuate their memory when the proudest monuments of earth and marble shall have crumbled away. To live in the hearts of a grateful people—to live in the affections of

a mother for snatching the little one from the icy hand of death—to have the gratitude of a husband for staying the hours of death from the companion of his bosom and the mother of his children—to leave behind a record: “He went about doing good;” this is more abiding than a place on a transitory and dissolving wall of any “Hall of Fame.”

Such is but a feeble portraiture of some of the achievements of medicine. Each victory over disease only leads to another. Each important discovery paves the way for another. Our work is only begun. The El Dorado of medicine is the prevention of disease. In the field of serum-therapy and the discovery of antitoxins, the greatest future of medicine lies, and why not the Louisiana State Medical Society produce a Pasteur or a Koch?

In conclusion, allow me to say may it be the motto of every member of this Society to live up to the noble aims and high purposes of our profession. If the profession in Louisiana is to achieve great things, it must be done through an organized body. Let us rally around the banner of the Louisiana State Medical Society—let us take no backward steps. The community and State must feel and know our influence. How better can this be accomplished than the perfecting in every parish an organization from which will radiate knowledge and influence, which will tend to the upbuilding and betterment of the people. Members of the Louisiana State Medical Society and citizens of the grand commonwealth, let us endeavor to make this Society and the profession more and more necessary factors in maintaining and increasing the wealth, health, happiness and prosperity of this fair land of ours.

Transactions of the Louisiana State Medical Society, 25th Annual Meeting.

(Special Report for the Journal)

MEETING MAY 10, 11 AND 12,

NEW ORLEANS, LA.

ABSTRACTS OF SCIENTIFIC PROCEEDINGS.

DR. L. G. LEBEUF read a paper entitled “*The Attitude of the Medical Profession Towards Race Suicide and Criminal Abortion.*” The author pointed out that wealth, luxury, ambition and selfish-

ness, mixed with many important customs and manners, were the causes of lessening the fertility of the women of all times. Our population has not increased in the last decades, but, on the contrary, would decrease if it were not for our large immigration and the great fecundity of the first generation of foreign born citizens of this country. The curse of civilization and the blight of the *fin de siècle* is the crime against nature, the determination to curtail the size of the family circle by prevention, that failing, by the crime against another being; and in preventing, man sins against the child and himself, he sacrifices his neighbor's welfare and the future of his country to his own little, narrow, misguided interests. Of the second course, the destruction of the fetus proper, there is something outside of the laws of the land which protects the living as well as the unborn, that cries out for the innocence so defenceless and unprotected in its foetal membranes,— the law of fair play, the manly cry of horror, against the heinousness of crime. Still-births and abortions are increasing in America, especially in our large cities. In Europe that which swells out the number of abortions is the enormous prevalence of illegitimacy. Statistics show 7 or 8 per cent. of each 100 deliveries to be illegitimate. The lack of proper maternal sentiment is the cause of the large death rate of illegitimate labor; in the decreasing fecundity we realize the deteriorating influence of what is called refinement and civilization. With the poorer class it is the fear of poverty and hard times. Whatever the motive this is the place for the high minded physician to exert his influence and sound a warning against this glaring desire to limitation and criminal thirst for destruction.

DISCUSSION.

DR. CHARLES CHASSAIGNAC believed that probably a large proportion of the diminution in the reproduction of our race was due to the limiting effects of venereal disease. The effect of syphilis in limiting reproduction is generally known, but the effect of gonorrhœa has only lately come to be recognized. There is no doubt, he said, that a large proportion of sterility is due to gonorrhœa, not only directly in the male, but especially, perhaps, through the effect on the unfortunate and innocent female. Ignorance on the part of the people is largely responsible for this, but it is also due to the carelessness of physicians, for there is no doubt that

many who are told they can marry should not do so, and not until they have made their wives sterile, and chronic invalids on account of disease of the uterus and adnexa, do they realize their error.

DR. DUCOTE said that an important factor in causing sterility was the mechanical means so often used, and that it had become very fashionable for women to stop having children, and in these cases the effect was due to these same mechanical means.

DR. DABNEY said it was a German who first appreciated that emigration increased the birth rate, while immigration decreased it. There is a law in Germany which directs that a child born in a certain year must go away.

DR. WATSON said that it is a fact that women object to having children, and that the husbands also object, and that there are many of them who have not a moral conception of what they do. Among the rich and poor alike there is a great deal of criminal abortion, and they do it simply because they do not want to have children.

“Rectal Alimentation”—DR. A. C. EUSTIS, of New Orleans.—The author, after calling attention to the anatomy and physiology of the parts, said that the importance of introducing all nutrient enemata well up into the colon, could be readily understood. There are no digestive ferments in the rectum, and in order to secure digestion of the substances introduced we must inject digestive ferments at the same time or digest the enema previous to introduction. Before fats can be absorbed by the intestinal mucosa they must be split up into fatty acid and glycerin. This is what happens when pancreatic juice is introduced with the enema. Starches have no value when given by rectum unless predigested. Glucose is readily taken up by the rectum and colon, but it cannot be employed in solutions stronger than 20% owing to its irritant effects. Clinically it has been demonstrated that nutrient enemata possess great food value. Wright, in a case of carcinoma of the stomach, fed a patient on nutrient enemata of peptonized meat, prolonging life for three months. Robinson was able to effect a cure of gastric ulcer by nutrient enemata. Deremberg treated two cases exclusively by nutrient enemata of peptonized meat, eggs and bread. The first was a case of stricture of the esophagus and the patient lived 14 months. The second case was that of tubercular laryngitis which gained in weight notwithstanding the disease. Lepine

treated three cases of hypochloridia on enemata of salted bouillon, but all of them lost weight. Later experience convinced them that it was necessary to predigest the enemata. There are a few objections to this form of nourishment, and the experience of the author, while confined to post-operative treatment, is very satisfactory.

DISCUSSION.

DR. F. W. PARHAM thought the important part of this subject was what they should give and how they should give it. From his experience he had come to the conclusion that milk and other substances were comparatively useless unless predigested, and he has been in the habit of predigesting all nutrient enemata before introduction. In this way he has gotten good results; he mentioned a case of gastroenterostomy which lived very comfortably for four days by rectal enemata alone.

DR. MAYER mentioned a case which he had kept alive for six weeks by rectal alimentation alone. He thought the secret was to introduce the enemata high up and slowly, and this he thought could be done ordinarily by the soft rubber catheter.

DR. MAGRUDER thought the enemata could be introduced high up by an ordinary syringe, and had succeeded in doing this very readily in children. He places the child with hips on a pillow, the shoulder and body being lower than the hips, then introduces the enema very slowly, occupying perhaps 30 minutes to introduce 12 ounces or 1 pound.

DR. DABNEY said he had no trouble in getting results with high flushing with the ordinary fountain syringe, but that he did have trouble when he attempted to use the flexible tube. With the fountain syringe and the hips well elevated the enema will go in very readily and be retained.

DR. EUSTIS in closing said that the addition of a little opium in the enema was very important, because it had a sedative effect on the mucous membrane. It was his custom to predigest the enema, before introducing it, by the use of a peptonizing tube, and this he does as long as possible.

“*Chloroform Anesthesia*” by DR. A. JACOBY of New Orleans—The method of administering chloroform, as practiced by many is extremely dangerous and done with too much laxity. The cone

at the commencement should be held well above the face and gradually drawn closer as the chloroform is dropped upon it. In this way the danger of sudden death is greatly lessened, because it permits the terminal filaments of the fifth nerve to become accustomed to the anesthetic and minimizes the effect of the shock.

Anesthesia should be produced and maintained with the least possible amount of anesthetic. For infants and young children he believed it advisable to pour the chloroform upon the cone, place it upon the face, and after the child has taken a deep inspiration calmly remove it; then repeat again, if necessary, until the signs of narcosis are present, and then institute the drop method. He did not think it was necessary always to produce a loss of reflex, which is done often at the risk of losing the patient; nor was it necessary, in determining the presence of reflex, to touch the cornea; touching the underside of the eyelid is just as satisfactory; touching the cornea is not only dangerous, but adds to the chance of dropping chloroform into the eye. The dangers of chloroform are cardiac failure, respiratory failure, and after effects, such as nephritis and fatty degeneration. The recognition of these facts has resulted in the more general use of ether as an anesthetic. Ether is far safer than chloroform, as there is less danger of kidney complication, and it is more a cardiac stimulant than chloroform.

DISCUSSION.

DR. LAZARD said that the dangers from chloroform were divided into two stages, the beginning and the recovery, and the more a man gives chloroform the more he dislikes to give it, or any anesthetic. In the beginning the danger is from an inhibitory reflex. Alcoholics do not take chloroform well. If the patient is struggling he should be allowed to become cool before the chloroform is given. In the stage just before recovery the pupil dilates and the face becomes ghastly white and then breaks out in perspiration; usually vomiting follows. If there is cardiac paralysis stimulation will do no good. If the heart stops the patient is gone; if the respiration stops, there are some chances for him.

DR. PERKINS said that we should not give the patient up simply because the pulse had stopped, for we know that a patient will recover even after the heart has stopped, if the proper measures are instituted.

DR. JACOBY in closing said that all conditions being equal ether should be preferred to chloroform. Chloroform will remain in the system and irritate the kidneys, but ether is less liable to do so. In the majority of cases there are more contrary indications in the use of chloroform than ether. If there is collapse all efforts should be instituted to resuscitate, and it is his practice to work for three quarters of an hour, or an hour before giving up. A point of particular importance is that where an experienced anesthetist cannot be secured it is wiser to give ether than chloroform.

“*Dacryocystitis*” by DR. R. F. HARRELL, of Ruston, La.—The affection occurs as a chronic and also as an acute condition, though primary inflammation of the lachrymal sac is extremely rare. In the vast majority of cases the disease is secondary, and attendant upon diseases of the nasal duct, stricture of the duct being the most usual cause. In the treatment, if the case is seen early, we may try to prevent the development of an abscess, by expressing the fluid from the sac and injecting antiseptic solutions, also by applying a pressure bandage. If inflammation has passed the initial stage, the only thing to do is to hasten the formation of the abscess and incise the anterior wall of the lachrymal sac, thus producing a fistula. This is kept open until all inflammatory symptoms have subsided. Indications for the extirpation of the lachrymal sac are chronic purulent dacryocystitis; repeated attacks of acute dacryocystitis; whenever the sac is dilated and lachrymal fistula is present. The technique of the operation was described before.

“*The Value of the Axis Traction Forceps in Certain Conditions,*” by DR. A. C. KING, New Orleans.—This instrument is essentially for use in high operations, but can be used in other difficult conditions where the ordinary forceps do not fulfill the indications. It should be used with the same skill and care as the ordinary forceps, as there is danger of tearing into the vaginal wall or rupturing the perineum. The forceps are of special value to a man with physical strength not equal to the amount of labor required to deliver. The advantages of Tarnier’s instrument over the ordinary forceps are: 1° the backward curve; 2° traction is made directly in the axis of the pelvic curve instead of forward against the pubic symphysis; 3° the traction rods permit more freedom of motion to the head; 4° there is no probability of the blade

springing forward; 5° it acts as a double compressor by means of the transverse screw, and the retaining effect of the traction rods. Cases were cited demonstrating the superiority of the axis traction forceps over the ordinary forceps in various conditions of difficult labor, resulting in the saving of lives of children which would otherwise have been sacrificed.

DISCUSSION.

DR. E. L. MCGEEHEE indorsed the paper very thoroughly. Only recently he had been called to see a case and found the physician unable to deliver with the ordinary forceps, and it was necessary to perform version. Any one who has used the Tarnier forceps will fully understand its value.

"Cancer Treated by Mercuric Cataphoresis," by DR. AMEDES GRANGER, of New Orleans.—This method was first used by Dr. Massey of Philadelphia, in 1893. By it is meant the cataphoric diffusion into the growth of the products of electrolysis. The electrodes are made of zinc of a shape and size to suit the effected parts and coated with mercury. By the electrolytic action of the current the body fluids are decomposed in the affected parts, the acid ions go into the positive pole and the basic ions go into the negative pole. The positive pole is the active pole and the acid ions attack the amalgamated zinc electrode, forming oxychlorides of zinc and mercury, which are highly astringent and germicidal salts. These nascent salts are driven away from the electrodes by the cataphoric property of the current and passed to the interior along the celluloid paths, that is, those containing the colonies of cancer cells, and in their passage unite with the albumen of the cells to form dead albuminates. Photographic slides were exhibited showing the result in three cases treated by this method.

DISCUSSION.

DR. J. B. GUTHRIE said the results in these cases were very interesting, and thought the result in the case of epithelioma of the tongue was the best he had ever seen obtained by any method. It is not possible to apply any antiseptic solution of sufficient strength to destroy micro-organism in the malignant growth, without destroying the tissue cells themselves, but the method described by the essayist seemed to have accomplished the desired end.

DR. H. D. BRUNS had treated one of the cases exhibited by the essayist, but without any effect whatever. In epithelioma of the lower lid, surgery does poorer work than anywhere else.

"The Importance of Surgical Tuberculosis to the General Practitioner," by DR. H. B. GESSNER, of New Orleans.—The author laid great stress upon the importance of the early recognition and radical treatment of tuberculous surgical conditions. The widespread character of the surgical lesion of tuberculosis, is becoming better understood, yet every practitioner does not fully realize it. Particular stress should be laid on the frequency of surgical conditions of a tuberculous character involving the bones, joints, bursae, meninges, glands, larynx, mammae, peritoneum, kidneys, testes, anus and other organs. It is a remarkable fact that a patient may have a marked tuberculous affection of a surgically accessible organ, and yet the lungs be absolutely free from disease. Treatment should be rest, the use of splints, the orthopedic treatment in general of tuberculous cases, and, in suitable cases, attacking by radical measures. Several cases were cited showing the beneficial results of radical treatment.

"X-Ray Therapeutics of Surgical Tuberculosis," by DR. J. B. GUTHRIE, of New Orleans.—There is no appreciable effect upon cultures of tubercle bacilli exposed for long periods of time to the action of this agent. In the case of inoculation, tuberculosis results are diametrically opposed to the former statement, as it has been found that guinea pigs inoculated with tuberculosis and treated by the X-Ray, recover after developing a localized lesion, while other pigs, inoculated at the same time and not so treated, very promptly die of general tuberculosis. Ulcers of various kinds clear up after a few exposures to the X-Ray, all other forms of treatment having been omitted. The response to radiotherapy of acne and pyogenic infection of the hair follicles, demonstrates that the X-Ray is a destructive agent to bacteria, probably by causing a local leucocytic migration and a proliferation of the embryonic fixed tissue cells. In granulomata there is marked degeneration of neoplastic cells and stimulation of normal tissue. In lupus vulgaris, the honors are divided between the Finsen Light and the X-Ray, both yielding excellent results, though the X-Ray is the superior method, on account of the greater ease of administration.

In more deeply-seated lesions the X-Ray is a valuable aid and results obtained warrant a trial before operation, where cosmetic result is of importance, or where sinuses are so extensive as to render operation impracticable.

"Surgical Tuberculosis From an Orthopedic Standpoint," by DR. E. J. HUHNER, of New Orleans.—Tuberculous arthritis and osteitis most often affect children, usually between the ages of 3 and 10. Spondylitis and hip joint disease are occasionally associated in the same patients. Hip disease tends to spontaneous recovery, with shortening and deformity; the treatment is mechanical or surgical, the former method with recumbency, with traction, or traction alone, or fixation. Fixation without extension is recommended only where symptoms are not acute and as a temporary method, as it will not prevent osseous destruction. The ideal non-surgical treatment of hip-joint disease is extension and counter-extension. This is best secured by the use of one of the many traction hip splints. Pott's disease is treated with greater success than ever before; recumbency in the acute stage, and plenty of sunlight and fresh air. Suspension is employed only temporarily during the application of fixation appliances. It should never be used to correct the resulting deformity, because of the danger of paralysis or death.

DISCUSSION.

DR. OECHSNER fully appreciated the efficacy of the X-Ray, but said that we are often liable to become "faddists." Operations must be thorough and every vestige of disease removed to prevent recurrence. The early recognition in surgical treatment of tuberculosis is of extreme importance, particularly when the bones and joints are involved.

DR. E. D. MARTIN also emphasized the importance of early diagnosis in Pott's disease. Spondylitis is more apt to be recognized on account of the complaint of the child and the gait, and possibly it is a more distinct disease. In the treatment with the X-Ray he had no doubt that good results had been obtained, but he knew of some bad results; therefore, when the X-Ray has been applied without benefit, we should resort to the knife.

DR. I. I. LEMANN mentioned a case of tuberculous spondylitis in which he had used the watery extract with good results, after having tried other measures without benefit. The patient, a little

boy 10 years old, is now able to play baseball, and exhibits no evidence of disease.

DR. A. JACOBY said that in affections of the glands, the mass should first be excised and then the X-Ray applied.

DR. J. B. GUTHRIE in closing, said that he did not pretend to convey the idea that all cases could be treated with the X Ray, not that it is a treatment that is absolutely sure, but it is one of expediency.

DR. HUHNER, in closing, said that tuberculosis was often diagnosed as rheumatism, as in one of the cases which he exhibited.

"*Complications of La Grippe*," by DR. J. B. ELLIOTT, JR., of New Orleans.—After reviewing the history of the disease, its etiology, bacteriology and symptomatology, the author enumerated cases. The true pathology of grippe pneumonia is still a matter of controversy. Case 1, showed symptoms of pain in the throat, severe headache, aphonia and fever; lungs and heart normal. The fever disappeared on the third day, but the aphonia lasted for a week. Other members of the family of the patient were attacked. Case 2 showed involvement of one lung with the presence of both the pneumococci and the influenza bacillus. Other cases were cited showing the involvement of the heart and other organs in grippe cases. In the treatment of uncomplicated cases the author uses quinin and salol for the pain, and caffein and strychnin for the prostration and cardiac arhythm.

DISCUSSION.

DR. J. B. ELLIOTT, SR., said that he had read a paper thirteen years ago on the subject before this Society, detailing the results of his first studies of influenza. The opinion he then held he still holds, and has found little but confirmation of the views then advanced, that influenza was a germ disease, entering the blood and producing its toxin, which acted upon the general nervous system, and the effect upon the general nervous system meant general prostration, with the patient in bed for several days. This toxin causes a vasomotor paralysis and the recognition of this fact will enable one to understand that there is no apparatus which is not liable to complication by la grippe.

DR. P. E. ARCHINARD said he saw cases of poliomyelitis and multiple neuritis due to la grippe, and that these cases occur every year. He believed grippe occurs in two forms, the catarrhal

form, and a neuro-muscular form, there the catarrhal symptoms are altogether absent, but the muscular and nervous symptoms are well marked.

DR. L. M. PROVOSTY asked if it is not a fact that grippe is an erratic disease—that there are many changes and varying symptoms, and if it is not true that there is no one fixed symptom which will distinguish it.

DR. H. D. BRUNS asked if cases of sudden blindness had been noticed in the last few years following attacks of grippe. In former years he was frequently called to see patients who had gone to bed in full possession of sight and woke up to find themselves totally blind in one or both eyes, due to a metastatic chroiditis and therefore absolutely hopeless. In late years he had seen none of these cases.

DR. L. G. LEBEUF had seen a number of cases of grippe complicated with interstitial nephritis, several cases showing a deposit of streptococci on the posterior fauces. The nephritis would last several days perhaps, and then disappear.

DR. ELLIOTT in closing, said that grippe takes various forms, but there is always intense depression. In nephritis the attack is due to the grippe toxin, and we will find the hyalin casts more often than the granular. The attack passes off in a few days leaving the patient perfectly healthy.

“*A Pectoralis Minimus Muscle*,” by DR. S. P. DELAUP of New Orleans.—The author described an unusual case of development of the third pectoral muscle—a pectoral minimus. The subject was a negro of well developed muscular system, which came to the Laboratory of Practical Anatomy at Tulane College. The muscle was three inches in length and one inch in width, entirely fleshy. It arose from the first notch on the left border of the gladiolus close to the articulation of the second costal cartilage, and the fibres were directed downward and outward and inserted in the outer surface of the cartilage of the fifth nerve, overlapping the costal origin of the pectoralis major. The latter muscle presented a shorter origin than normal. The author mentioned a number of anomalies of blood vessels as found by him in different subjects. It is important to remember that such anomalies occur as they materially effect surgical operations. In the case of injury to the axillary vein requiring ligation, it is important to know whether there is a

single or a double, a triple of a quadruple axillary vein. It is not uncommon to find a high bifurcation of the brachial artery.

DR. J. N. THOMAS, Chairman of the Section on Quarantine, was unable to be present at the meeting, and submitted the following letter, which was read by Dr. J. F. Mayer:

“As the question of the conveyance and spread of yellow fever is still a mooted one, and that notwithstanding it has been undeniably proved that the female *stegomyia* mosquito conveys the disease, it has not been proven that the disease is not conveyed in other ways, and while many in the profession believe the mosquito is the only means of conveying the disease, a large number of the most reputable physicians of the State do not accept this theory, but believe that the disease is carried in other ways. That as long as there is any doubt no quarantine officer, charged with the grave responsibility of protecting public health from pestilential disease imported from foreign shores, has any right to accept any theory or belief to the discredit of another, but he is in duty and honor bound to give the public health the benefit of any doubt, and to adopt and enforce such measures of protection as will combat the disease from any and every standpoint of supposed origin and conveyance. Thoroughly believing this to be the safe and proper ground for any maritime quarantine officer at the Mississippi River Quarantine Station to take, we are fighting the importation of the disease from every standpoint. With the question of conveyance in its present doubtful state, I do not consider any other course advisable or safe.”

DISCUSSION.

DR. QUITMAN KOHNKE said there was danger in following a belief and voicing opinions of some who are affected by a new doctrine; and also of following the opinions of enthusiasts in favor of a new doctrine or a new theory. Those who are not enthusiasts and who are not interested in the theory, are the ones who should ultimately decide which opinion is correct on any given subject. The discussion on this question has been divided between fomites and anti-fomites—between the mosquitoites and the anti-mosquitoites. Dr. Kohnke believed that the mosquito transmission of yellow fever is absolutely true—proved positively and proved negatively. The experiments in Cuba demonstrated beyond any reasonable doubt that the female *stegomyia*, can, because it did, convey yellow fever. Even

those who believe in the possibility of stuffs containing the germ accept the opinion that yellow fever may be and is conveyed by mosquitoes. On the other hand those who accept fully the mosquito theory, deny the possibility of yellow fever being conveyed in any other way. He believed that an unbiased study of the question would result in a free acknowledgement that the mosquito is the only means by which yellow fever is conveyed.

PROF. BEYER said that the investigations of Reed and Carroll have been corroborated not once, but a number of times, both in this country and in foreign ones, and that the law laid down by them has been proven in every detail. The organism is practically known to be an animal parasite, and if it is an animal parasite it requires its distinctive environment in which to thrive and grow. From all experiments and a thorough study of the question, the speaker felt that he must align himself on the side that there is but one means of transmission, and that is the mosquito.

DR. PATTON said that while the mosquito seemed to be the most important, and possibly the only means of conveying the disease, he did not believe that it had been absolutely proven. In his opinion, therefore, it would be most unwise to neglect any means to prevent the importation of the disease, and until it had been absolutely proven beyond the possibility of any doubt that the mosquito was the only possible means of conveying yellow fever, measures should not be alone restricted to the destruction of it.

DR. MARTIN said that in 1878 no effort was made to cleanse the patients; they were left alone until they either recovered or died. In the epidemic of 1897 the treatment was entirely different. Yellow fever prevailed for quite a while before it was recognized. At that time the patient was treated as all other fever patients were treated, the linen was changed, the body sponged and only in rare instances was any odor detected. He believed that the mosquito is a conveyor of the disease, but he was not yet convinced that it is the only means of transmission.

DR. MAYER in closing, said the question is whether a quarantine officer charged with the duty of protecting not only Louisiana, but the whole Mississippi Valley from infection by foreign pestilence can afford to leave the beaten path of safety for any theory, no matter how plausible. The commercial rivals of New Orleans are waiting for the opportunity to break down the commercial im-

portance of this city and would be only to glad to see in every jaundiced eye, an opportunity to tie up the commerce of this port. It is, therefore, incumbent upon the quarantine officers to prove that there is no other means of conveyance than the 'mosquito, and until this is proven to be the only mode of infection, it is a part of their system to continue the measures which are known to be effective.

"*Edebohl's Decapsulation of the Kidneys*," by DR. F. W. PARHAM, of New Orleans.—The author described a case of chronic interstitial nephritis treated by this method. The patient had been sick for several years when first seen by him, and had been treated by a number of doctors. After special treatment with rest in bed, special diet with all albuminoids excluded, it was decided that Edebohl's operation would be justifiable. This was done and the capsule removed from both kidneys. Each capsule peeled off without trouble, except for a little adherence towards the hilum, where it shredded somewhat, making it a little difficult to remove evenly with the scissors. The kidney structure was well exposed and denuded on each organ, and nothing unusual was remarked about their appearance, except that they were somewhat smaller than normal. The result of the operation was very satisfactory and the patient's condition since operation shows a gradual improvement. The author believes that the operation is justifiable in selected cases and although it may not result in a permanent cure, yet the manifest amelioration of this patient's condition speaks well for the operation when undertaken early, and in a form of nephritis not marked by connective tissue change.

DISCUSSION.

DR. E. D. MARTIN had seen the case reported by Dr. Parham, and corroborated the statement that the patient had been very materially benefited. The important point in this disease when considering operation is to operate early, but the trouble is that the disease is not recognized until, in most instances, it is advanced to such a point that operation is inexpedient. It should be a routine procedure for the physician to examine the urine of patients where there is even a remote possibility of nephritis. This operation holds out chances for cure, and he believes it is thoroughly justifiable.

DR. E. D. SCHUMPERT mentioned a case in which he removed the capsule of the kidney. In doing the operation he made both longitudinal and transverse incision believing that the fibrous tissue which forms is more yielding and elastic when the incision is made in this way.

DR. BATCHELOR said that as reformation occurs the benefits of the operation are limited, but in view of the statistics it should be tried in addition to all other methods, but performed only in selected cases.

"Acute Suppurative Osteomyelitis," by DR. J. F. OECHSNER, of New Orleans.—In no class of patients is a thorough physical examination of more importance than in children, as the little patients are unable to describe their symptoms. The author described a number of cases, detailing the benefits of early interference.

DISCUSSION.

DR. LARUE said that we must recognize the disease early if we expect to do any good. He mentioned several cases operated on by him with good results.

DR. E. D. MARTIN emphasized the importance of early diagnosis. The diagnosis should be confirmed before operation by the use of the small trephine. The cases readily yield to treatment when instituted early.

DR. S. M. D. CLARK said a point of importance was to relieve the tension by drainage.

DR. J. M. BATCHELOR read a paper on *"The Treatment of Club Foot by the Method of Lorenz."* The good results obtained by this method were shown in three cases operated on by the author. Lantern slides of the patients were exhibited, which demonstrated the wonderful possibilities of this bloodless method of correcting club foot.

Abstract of Minutes of the Meetings.

The twenty-fifth annual session of the Society convened at 10 a. m., May 10, 1904, with the President, DR. J. M. BARRIER, in the chair.

REV. THOS. J. LAWTON, S. J., delivered the invocation. HON. PAUL CAPDEVIELLE, Mayor of New Orleans, welcomed the Society to New Orleans.

DR. L. G. LEBEUF reported for the Committee of Arrangements, relating the excellent provisions for the meeting, exhibits and entertainments.

The President reported the work of his office for the year, incidentally referring to the effort at organization and the results at the hands of the Secretary and himself.

Reports of the several Councillors were heard, as well as of the Committee on the Pasteur Institute. A long and interesting report was submitted by the Secretary conveying suggestions in policy.

Several papers were read, after which the meeting adjourned for lunch at the New Orleans Polyclinic.

THE AFTERNOON SESSION was called to order at 2:30. The reports of the Council and of the several other Councillors were read and referred to Publication Committee.

There were several papers read and discussed. AT THE NIGHT SESSION the whole time was devoted to sections, papers and discussions.

SECOND DAY, MAY 11, 1904.

MORNING SESSION—Aside from scientific proceedings, there was a resolution adopted expressive of the deep interest of the Society in the welfare of the Eye, Ear, Nose and Throat Hospital, and carrying a recommendation to the country members to urge the practical financial support from their several police juries.

A delightful lunch was enjoyed at the Chess, Checkers and Whist Club after adjournment of this session.

AFTERNOON SESSION—Among business of this session are to be noted the report of the Acting Treasurer, proposal of new members, active or delinquents, etc.

THE EVENING SESSION was devoted to the addresses of the President, DR. J. M. BARRIER, of the Annual Orator; REV. WM. M. F. ALEXANDER, PROF. S. E. CHAILLE, and to the reading and discussion of papers.

THE THIRD DAY'S SESSIONS were devoted to resolutions, report of Council, election of officers and discussion of papers, etc.

The Council named a Nominating Committee of Drs. J. J. Archinard, Chairman; E. D. Friedrichs, I. T. Rand, O. Dowling, R. F. Harrell, E. L. Irwin, L. Lazard, who reported as follows:

“We, your Nominating Committee, recommend the following officers for the ensuing year:

“For President, Charles Chassignac; First Vice President, Oscar Dowling; Second Vice President Leo Tarlton; Third Vice President, J. F. Buquoi; Secretary, P. L. Thibaut; Treasurer, M. H. McGuire. Councillors, First District, P. E. Archinard; Second District, A. G. Friedrichs; Third District, F. R. Tolson.

These nominations were amended by substituting the name of Dr. I. I. Lemann as Secretary, and Dr. J. J. Ayo for the Councillor from the Third District, after which the above amended list was elected by the Society.

The Committee further recommended, as a member of the Board of State Medical Examiners, to succeed Dr. Felix A. Larue:

Dr. F. A. Larue, Dr. H. J. Dupuy.

Delegate to the American Medical Association, Dr. Wm. M. Perkins; Alternate, Dr. Jno. B. Elliott, Jr.

The Committee further suggested an honorarium of \$500 to Dr. Perkins, the retiring Secretary, for faithful and efficient services, and suggested New Orleans for place of next meeting, the second Thursday in May, 1905, as the time. All of these recommendations were carried by unanimous vote.

A set of resolutions were adopted aimed at a representation of the Society on the New Orleans Charity Hospital Board, to be accomplished along the same lines as the present mode of formation of the State Board of Medical Examiners. Resolutions were passed favoring compulsory examination of eyes and ears of school children; also, resolutions urging the creation of a live-stock Sanitary Commission, aimed at pure-drug laws, and a memorial to the United States Congress, directed at improving the United States Army Medical Service.

The State Board of Medical Examiners made a report showing cognizance of fifteen violations of the Medical Practice act, and recommending changes in the act more strictly defining the relations on midwifery, etc.

Corollary to this report was that of the special committee on changes in the Medical Practice act. This particularly touched upon the addition of gynecology to the subjects for examination, and upon a reciprocity clause to be added to the present act in force.

The Society adopted resolutions aiming at improvement of methods for caring for the insane in the State, and for making adequate provisions for the regulation of such persons.

The Treasurer's report was in substance as follows:

Received from former Secretary.....	\$1,536 57
Received from members, 1902-04 dues.....	2,856 00
	<hr/>
Total	\$4,392 57
Disbursements	1,724 93
	<hr/>
Balance May 10, 1904.....	\$2,667 64
With several parishes yet to be heard from.	

It was voted that the Society secure headquarters at the Orleans Parish Society Building, and that the year's proceedings be published in the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL*, the official organ of the Society, and that there be no bound transactions of the 1904 meeting. .

With the banquet at West End Thursday evening, May 12, the meeting closed. On this last occasion the toast-master was impersonated by the genial Dr. Wm. Perkins, who successfully induced graceful remarks from his Honor, Mayor Paul Capdevielle; the pith of humor from the effervescent "hayseed," ex-President Barrier, from Delhi, who always supplies the kernel of wit with a coloring of Websterian affluence. Others to speak were Dowling, Magruder, LeBeuf, Dyer, Parham, MacVea and, finally, our orator, Fred Mayer, who lilted and euphemized the "Country Doctor."

SOME NOTES.

There were 298 registered at the meeting—the largest number yet.

A representative list of exhibitors was in evidence.

Dr. E. J. Goodwin, of St. Louis, was the official stenographer.

Society Proceedings.

Orleans Parish Medical Society.

President, DR. M. J. MAGRUDER.

Secretary, DR. S. M. D. CLARK.

163 University Place, New Orleans.

MEETING OF APRIL 23, 1904.

DR. A. G. FRIEDRICHS exhibited *A Case of Fracture of the Inferior Maxillary*, in which he discussed the method of treatment of different kinds of fractures of the inferior maxillary.

DISCUSSION.

DR. MARTIN agreed with Dr. Friedrichs in regard to the application of a properly fitting splint. No rule could be followed in the treatment of these cases. It was absolutely necessary to get perfect adjustment and permanent fixation, as it was true that these fractures would unite in almost any position.

DR. GESSNER spoke of a splint devised by Dr. Rudolph Matas for treatment of fractures of the inferior maxillary, this being a modification of the Ackland splint. The latter consists of an alveolar arch and a chin plate connected on each side by a screw with milled head, the whole of firm metal. Dr. Matas' modification consists in making the alveolar arch of block tin, so that it may be modeled to fit individual cases and in having a single central screw connecting the two plates (alveolar arch and chin plate). Regarding the domain to which inferior maxillary fractures belong, he thought that if such injuries were to be treated by one or the other alone, they were better treated by the oral specialist alone. However, the average dentist (there are exceptions, but this is true, he believes, of the average man) is not sufficiently well informed in pathology to treat such cases alone. The best thing is the treatment of such cases by the surgeon and dental specialist together. This combines the special skill in handling the region involved with good knowledge of pathologic processes.

DR. PERKINS urged the importance of systematic irrigation for

all wounds of the buccal cavity, as taught by Dr. Parham. It made little difference whether the irrigating fluid contained mild anti-septic or not, the essential feature being the removal of micro-organism and organic debris at intervals. Immediately before and immediately after eating were especially important times to irrigate. An irrigator or fountain syringe should be kept hanging near the patient's bed, and irrigation should be done with the patient's face towards the floor.

DR. JACOBY related two cases treated with the pasteboard cup for chin and Barton bandages, with good results. One was a double fracture.

DR. MAGRUDER reported good results in a case of compound fracture on each side of the symphysis, with the interdental splint made by Dr. Friedrichs. The cause of the injury was a horse kick on the chin.

DR. FRIEDRICHS said that he was astonished at the remarks of a previous speaker that the dentist did not know anything about pathology and that it was well to call him to attend a case of fracture, but that he should always have a surgeon in attendance on account of this deficiency. The gentleman who was the author of this remark was responsible for a number of men who are at present practicing dentistry. In the institution of which he is dean the dental students receive equal and like instruction in pathology, such as the medical students do by the same professor, and bacteriology is taught to medical and dental students alike, the same course being given to both by the same professor. Dr. Friedrichs, in closing, said that a success must be a perfect approximation of the teeth of the lower jaw with those of the upper jaw. This is not only possible, but in his practice it is the rule.

DR. PERRILLIAT read a paper entitled:

"Pseudo Intra-Ligamentary Extra-Uterine Pregnancy."

My object in writing this paper was to present before the Society the history of a case in Prof. Michinard's gynecological service of the Charity Hospital, which presents all the subjective symptoms, and all but one of the objective symptoms of an intraligamentary tubal rupture, followed by the formation of an extra-peritoneal hemocele, or broad ligament hematoma. The texts and the references, however, surround the diagnosis of this form of ectopic

gestation with so many restricting qualifications that I have purposely given this paper the title of pseudo-intra-ligamentary, in order that each one may form an independent opinion as to the exact location of the site of the hemorrhage, after the history of the case has been presented. According to Douglas, a broad ligament hematoma is a common occurrence, due to many causes, but only occasionally to tubal rupture. The latter variety is extremely rare. In 83 operations Price has not seen a single one. In 1000 celiotomies, with 23 extra-uterine pregnancies, Kelly saw 2. The experience of other authors has been similar as to the rarity of the occurrence. From the standpoint of immediate danger to the mother it forms the most favorable variety of rupture, accompanied as it usually is by a complete extension of the contents of the gestation sac into the fold of the broad ligament, giving rise to the death of the ovum, surrounding it by a blood clot, and facilitating its disintegration and ultimate absorption. It is attended with less pain and faintness, as the effused blood is limited by the resistance of the surrounding structures. The anatomical reasons for this are obvious. When the pregnancy ruptures, the ampullary portion of the tube, which is by far the most frequent site of implantation, has gradually, in its growth, distended and separated the meso-salpinx and later the broad ligament, so that the space upon the under surface of the tube, which in the normal state is a mere line, becomes a wide area. Rupture then occurs between the folds of the meso-salpinx, and as the hemorrhage gradually increases, the broad ligament is encroached upon, and the cellular connective tissue of the pelvis fills up until finally the blood meets the hard resisting bony pelvic walls, and there stops. The pressure of the bloody fluid confined within a limited space, roofed in by the expanded tube and peritoneum, floored by the recto-vesical fascia and beneath it the levator ani, and laterally by the bony walls of the pelvis, acts very much as a tampon, arrests any further hemorrhage by pressure, and in this manner accounts for the little amount of shock and limited hemorrhage which characterize these cases.

The criteria of a broad ligament hematoma, according to Douglas are: "When you open the abdomen for supposed tubal pregnancy and find lying to one side a dark purple tumor, the round ligament passing over its anterior surface, the Fallopian tube somewhat expanded and enlarged upon some portions of its upper sur-

face, the ovary flattened and displaced toward the outer pelvic wall, the uterus elevated out of the pelvis, displaced to the side opposite the tumor, as it does to an intra-ligamentary cyst, and further, when the peritoneum is found raised from the posterior surface of the uterus and from Douglas' cul-de-sac, and if by incision over the tumor through one layer of peritoneum liquid and clotted blood is found, we have an intra-ligamentary gestation." All these may be closely simulated by an intra-peritoneal rupture amid performed adhesions, due to an old peri-salpingitis or other pathogenic conditions, so that the blood clot becomes encysted by surrounding intestinal adhesions, forming an artificial sac-wall, which will encroach upon Douglas' cul-de-sac, and might lead to a mistaken diagnosis of broad ligament hematoma. These are the cases spoken of by Kelly as pseudo-intraligamentary. He even says that, at times, with the abdominal cavity open, the differentiation can be made only by separating the adherent structures and liberating the tube and ovary from the general mass of bloods clots.

Having arrived at a definite understanding of the condition necessary to make a diagnosis of broad ligament hematoma, following a ruptured tubal gestation, I will relate the history of the case and the findings of the examination. Patient, aged 27, had not had any children for several years. Menstruated regularly, at the time of her last menstruation she went one week over the time for her period, when the trouble began by a rather profuse flow from the uterus. She consulted her physician and was given ergot to check the hemorrhage. Forty-eight hours after, in the morning, she was taken with a "faint feeling" and a pain in the left side, which caused her to sit down. The pain decreased and she was able to get around her house, but gradually was getting weaker, the flooding being irregular. Three weeks after she came to the hospital. On examination in the ward, her condition was one of great exhaustion, very anemic. Pulse rapid and feeble, and the slight disturbance caused by the examination was sufficient to greatly accelerate the pulse, and made stimulation necessary. Temp. $99\frac{1}{2}^{\circ}$ F. External palpation revealed a distinct tense mass on the left side, extending slightly above Poupart's ligament, and encroaching a little to the right of the median line. Bi-manual vaginal exploration revealed a hard, tense, slightly elastic mass, absolutely immovable, pushing the uterus above and to the right,

filling Douglas' cul-de-sac, encroaching upon the upper portion of the recto-vaginal space and extending along the pelvic floor to the left as far as the bony pelvis, presenting a rounded dome and a sessile base. Uterus slightly enlarged. Bowels costive.

The history of the onset of the trouble is sufficiently characteristic to establish a diagnosis of ruptured tubal pregnancy of five weeks duration. The delay of the menstruation, the beginning of hemorrhage from the uterus, the pain and faintness on the second day following the administration of the ergot, which by the way was probably the determining cause of the rupture by exciting uterine and tubal contractions, all point to it. We may now begin to notice a slight divergence between the symptoms presented by this particular case, and the usual picture presented by the great majority of ruptured pregnant tubes when the hemorrhage takes place in the general cavity. There is much less pain, no great shock, and the hemorrhage evidently so slight as not to compel the patient to take to bed. Her gradual exhaustion however is explained by further little hemorrhages taking place from time to time, the patient not keeping quiet sufficiently long to arrest the process altogether, and any great hemorrhage being rendered impossible by the tension in the broad ligament. Such a condition has been demonstrated in evacuating broad ligament hematoma, by the finding of regular laminae in the blood clot, each layer corresponding to an additional hemorrhage. Again upon examination we find all the objective symptoms of an intra-ligamentary fluid accumulation: the bulging of the vaginal wall, the filling of the Douglas cul-de-sac, the hard, tense, immovable tumor to the left, pushing the uterus above and to the right. The only thing lacking to make the diagnosis certain is a direct incision through the peritoneum.

The patient's condition was such that an operation did not appear advisable, principally because of the diagnosis of broad ligament hematoma had been made. The logical conclusion reached was that, as this blood accumulation was defined within fixed limits, with a well developed tendency to stop of its own accord, with the probabilities that the ovum had been completely detached and was dead, and that therefore all things were favorable for a spontaneous cure, the only accident to fear was infection of the blood clot from the bowel, or a return of the hemorrhage, hardly probable after three weeks. The patient was therefore kept

in bed, stimulated, nourished, and the bowels kept clean by anti-septic lavage, so as to try to prevent any migration of septic organisms from this source. In two weeks the mass had almost completely disappeared, and the patient insisted on returning home, much against our warnings, for we felt that there was still a remote possibility of infection.

DISCUSSION.

DR. MILLER: It is easier to diagnose an abdominal rupture than an intra-ligamentous cyst. In sixty per cent of peritoneal hemorrhages extra-uterine pregnancy is the cause. The most positive sign of extra-uterine pregnancy is uterine scrapings, in which will be found masses of decidua. Another sign is by ascertaining the position and the size of the uterus. He did not believe that one could be sure of the diagnosis unless more confirmatory signs than those related by the writer.

DR. LEMANN: The decidual cast was of importance in the differential diagnosis, but very often none was thrown off, or if these were it was so disintegrated as not to be distinguishable as a cast. Again, from the patient's history it would be impossible sometimes to differentiate a cast from a clot. As for the operative method to be adopted in treating ectopic gestation, he was of the opinion that the abdominal route was that of choice, except where there was clearly an encysted suppurative mass in the posterior cul-de-sac which could be easily evacuated through the vagina. Bovée, who formerly had been an ardent advocate of the vaginal route, had last year announced his conversion to the supra-pubic route. As for Dr. Perrilliat's case, he thought it was extra-uterine pregnancy, but whether it was true intra-ligamentary or pseudo intra-ligamentary gestation, it was impossible to say with the evidence Dr. Perrilliat presented.

DR. PERRILLIAT, in closing, said that the question of diagnosis was one of paramount importance, and any definite statement bearing upon the relative proportion of ectopic to normal pregnancies is surrounded by insurmountable difficulties on account of the lack of precision in diagnosis in early cases. Dr. Cousins, in the *British Medical Journal*, said: "In the absence of abdominal tenderness or swelling, and of well marked signs and symptoms of pregnancy, it is certainly not surprising that early tubal gestation should sometimes be destroyed and the patient speedily recover without any

recognition of her real condition. But a diagnosis sufficiently early can be made and an operation postponed before the life of the patient has been seriously imperilled, in most cases. These symptoms are: If there are symptoms of pregnancy associated with fitful and irregular hemorrhages, obscure pelvic pains, the presence of a swelling adjacent to or continuous with the uterus and well marked changes in the breasts, there is sufficient evidence of the existence of an unruptured tubal pregnancy to justify an abdominal exploration." Most cases, however, come under the attention of the physician only when a rupture occurs, and the diagnosis then rests upon the recognition of intra-peritoneal suppuration and hemorrhage, and although a rupture and hemorrhage into the abdomen may be due to other causes, as a gastric ulcer, for instance, the history of delayed menstruation and the symptoms of pregnancy will clear up the diagnosis. In any event, an immediate abdominal operation is indicated. As to treatment, Dr. Bovée, in 1897, read a paper in which he recommends the vaginal route. Since then he has had some fatalities, which have caused him to change his method, and now he advocates the abdominal route in all cases, except if broad ligament pregnancy can be recognized before operation, in which case he would be disposed to except it from the rule. Dr. Bovée also laid stress on the fact that when all the clinical symptoms of extra-uterine pregnancy were present—severe shock, intense pain in the pelvis, with collapse, evidence of severe internal hemorrhage, the expulsion of uterine decidua and absence of menstrual period—are symptoms that are valuable, but are found only in clearest cut cases, and, therefore, taken together as a symptom integer, are not of great value in the majority of cases. When Dr. Atlee first reported his series of cases of ovarian cyst, the diagnosis was made only when the accumulation of fluid has reached considerable size. We now diagnose ovarian cyst almost in its incipency. The recognition of tubal gestation is now undergoing a similar evolution.

DR. A. GRANGER read a paper entitled:

**Report of a Case of Intractable Vomiting of Pregnancy Cured
by Electric Currents, Illustrating the Importance
of Current Differentiation.**

(*Abstract.*)

The history of Dr. Granger's case demonstrated that the most important subject of the art of electric therapeutics was

current differentiation. By that is meant the careful selection of the electric modality indicated in the pathological condition under treatment. This was the patient's fourth pregnancy. The vomiting began early and after trying the usual medicinal agents, also resorting to posture treatment, electricity was tried as a last resource. Galvanism was first used without any benefit, then Faradism was found to fulfill the indication better, and immediately after the commencement of its use the patient became convalescent. During her first pregnancy she was very sick with nausea and vomiting throughout the whole course; the second pregnancy was attended with the same symptoms, but in a more aggravated way, continuing unabated until she aborted five weeks later; the third pregnancy after six weeks of nausea and vomiting, abortion was performed to save her life, after failing with all the ordinary remedial methods, including postural treatment.

Dr. Granger concluded as follows:

1st. Electro-therapeutics is a scientific system of therapeutics and not the empirical employed as a remedy of unknown quantity.

2d. If we fail to obtain results with electricity within a reasonable period of time, longer in chronic conditions and shorter in acute ones, not to persist with an especial form of current, but to make up our mind that either our technique or our selection of the electric method is incorrect.

3d. Not to discredit the whole system because we fail to obtain the various effects of electricity from only one, and that possibly a crude apparatus, as each current and variation thereof produces distinct physical, mechanical, chemical, physiological effects, just as so many drugs.

DISCUSSION.

DR. MARTIN: Intractable vomiting was due to several causes. He had known the condition to be relieved by douche-dilatation, knee-chest position, etc. One case, unfortunately, was not sufficient to draw any deductions from, but Dr. Granger was on the right track and he hoped the doctor would make further experiments and report later the result of his experience.

DR. HAMILTON TEBALD said that in a case he treated he elevated the foot of the bed and applied glycerin tannin tampons, with good results.

DR. MILLER believed that the diagnosis, of course, was the most

important step in treating a case. Auto-intoxication from the bowels, acute atrophy of the liver, displacements, were causes. The vomiting due to anteflexion was very difficult to treat; in displacements the vomiting was cured by remedying the malposition of the uterus by the Hodge pessary. In those cases in which constipation was very evident, purgatives and rest in bed would give best results. In fatty degeneration of the tissues, liver, kidney, a losing pulse and rising temperature called for emptying the uterus, and not electricity; otherwise the patient would die. In pronounced cases, nothing was as effective as a competent nurse to enforce rest and administer the nourishment. As a general line of treatment, nourishment, rest and cleansing the bowels offered the best results.

DR. GRANGER, in closing, said that he wished the members to bear in mind that he had recommended a system of therapeutics in these cases, and not a method. He thought that the history of the case reported showed the importance of the care which should be exercised in selecting the proper electric modality and that upon this more than anything else depends our successful treatment of any disease by electric current. In his case every known form of treatment, medication, posture, diet, etc., had been used and still the patient could not retain medicines or any form of nourishment. The current was the only means of treatment, otherwise the uterus would have been emptied to save the patient's life.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The State Medical Society Meeting.

The recent meeting of the State Society evidenced the results of the late administration in an attendance which surpassed any previous meeting, and in a three days' session of more than ordinary interest. Aside from the presentation of most excellent papers, there were suggested measures of great medical import aimed at raising the standard of medical practice and at making institutions in the State under medical supervision. Resolutions were adopted specifically urging the Legislature to fix a medical membership on the Charity Hospital Board of Administration and making their nomination among the members of the State Society, thus removing the present political disposition of the Board and limiting the service of the medical member.

The meeting demonstrated an organization in 39 parishes as against four or five in the previous year.

Altogether the purposes of medical organization and advancement have been materially fostered by this meeting, and we may indulge in the hope and expectations that another twelve months will see the Society with a larger membership and added power for the good of the cause.

Orleans Parish Society Domicile.

When Dr. A. W. DeRoaldes retired as President of the Orleans Parish Medical Society some years ago he strenuously urged a permanent residence for the local Society of New Orleans. Since then the Orleans Parish Society under each of its administrative heads has moved on to this end. With patient effort at organization, incorporation and systematization of the regulation of the

body, there has naturally followed a desire on the part of all the members to have a home. During the past month a building on Elk Place, corner of Cleveland Avenue, was bought for \$5,000.00, and as soon as the necessary and desired repairs have been made the Society will be domiciled. It is a long step from the early struggles of a society of some seventy members to a complete organization of over 200; but this has happened and in hardly more than ten years. To-day a complete *entente* prevails in the organized profession of New Orleans, and a glance at their scientific work in the past few years will demonstrate that the Orleans Parish Society has responded to the efforts of those who have gone before.

Louisiana State Nurses' Association.

The graduate trained nurses of Louisiana have gotten together and have had a bill framed for presentation before the State Legislature during its present session. The bill provides for the registration of all graduated nurses after they have qualified before an examining board of nurses appointed by the Governor from a list to be selected by the Nurses' Association.

The bill aims at protecting the public from unscrupulous and pretentious women who have never had any training or who have never finished their course for various reasons. It also aims at raising the standard of the trained nurse herself by establishing a legal status for her and making a court of recourse for the evils which naturally surround this class of working women.

The public should sympathize with the movement and the bill should be passed.

We feel, however, that something is to be said on the public's side. Nurses who are trained and graduated from the several New Orleans Schools have in many respects outgrown the appreciation of their real status. Nursing was never and can never be anything more than a preferred occupation for women. It affords a more genteel livelihood than the task of clerk or servant, and as such it brings a higher sense of obligation, which in turn entails a respect for the necessitous burden and sacrifice of the calling.

The occupation of the trained nurse is one of hire, and she earns the stipends according as she is honest and painstaking. Many nurses prefer to call their work a profession and this misappre-

hension has often resulted in her assumption of the office of medical adviser, when she really is only a part of the machinery employed in the direction of any given case of disease. The privileges of personal contact and close relationship with patients of physicians advising their employment have often led to the assumption of absolutely unauthorized rights, which from honesty and conscience are misdirected. These must be relegated into the same disuse as other evils besetting a nurse's work, or no legislative act will or can determine a standard which has as a part of its foundation a false position engendering a lack of confidence on the part of the physician and a lack of respect from the patient.

Tulane Medical Department.

The recent Commencement of the Medical Department of Tulane was a matter of gratification to every medical man in Louisiana. Not only did the Dean's report show an increase in the attendance, a smaller graduating class, but it showed a higher standard of the old school. The 91 graduates who received their diplomas were the first to have fulfilled a four-year's course, and a glance at the personnel of the class showed the result of an elevated standard.

With the Hutchinson legacy finally settled in the favor of the College, the future of this school should be assured. The Tulane Medical Department has depended largely on a long time repute, satisfied to move along established lines, even if archaic in some particulars. The clinical advantages and teaching have never been lacking and have ranked with any school in the United States. Now every line of teaching should be advanced and the friends of the school as well as the admiring graduates may have more and more reason to reckon her advantages, and to point to comparative standards with swelling pride.

Kissing Again.

Quite an interesting critique anent the late agitation about kissing appeared in the editorial columns of the *New York Medical Journal* and the *Philadelphia Medical Journal* for March 19, 1904. No attempt is made at either attack or defense, but we incline to the belief that the conclusions of the editor point to some sympathy

with those who still practice the osculatory habit. It must be a far reaching microscopic eye that essays to tilt with the kiss itself and hopes to find in its vapory nothingness some wafted germs, 'coccuses, or 'illis, and plant them on a waiting slide, while lovers woo or mothers whisper cradle lullabies to pouting baby lips.

Oh! Shades of Secundus and ye, companions of Bonnefons, in vain your apostrophes have rung to willing ears for nigh four centuries if in a moment cold, drear, science touches your poetic lines with blasting truth. Why write such odes as these if time shall kill them in the name of cruel truth:

"'Tis not a kiss those ruby lips bestow,
But richest nectar and ambrosial dews;
Such as from fragrant naid or quassia flow,
Or blest Arabia's spicy shades diffuse;
Or sweets from Hymettus' thymy brow,
Or roses that Cecropian bowers produce,
Unwearied honey-bees selecting bear
To cells of virgin wax, and temper there."

"All hail, ye kisses of ambrosial birth,
Whom Neptune's thrilling hour produc'd on earth!
Sweet joys, that soothe the pangs of fierce desire,
For you the bard shall wave the sounding lyre—
And while the Muses' hill shall last, your praise
Shall live immortal in the poet's lays;
And Love! who boasts himself with conscious pride,
To that dear race from which ye spring allied,
In Roman strains your raptures shall rehearse
In all the liquid melody of verse."

"To crown our raptures 'twas agreed, dear maid,
A sweet two thousand should the number be;
And on thy glowing lips a thousand paid.
A thousand kisses I received from thee;
Complete, I own, the numbered raptures prove,
But when did numbers e'er suffice with love?"

"Yes, count my tears. Yet if thou cease to count,
O, cruel maid! each kiss thy lips bestow,
Then of my sorrows heed not the amount;
But, oh! if such can mitigate my woe,
Let the unnumbered tears these eyes have shed,
By thy unnumbered kisses be repaid."

"Why reach for sweets in every flow'ret's bloom,
The thyme, the anise, scatt'ring sweet perfume;
The blushing rose, the violet's nectar'd flower,
Ambrosial offspring of the vernal hour?
Fly, silly insects, to my charming fair,
Light on her lips, and gather fragrance there—
Lips where the thyme, and blushing rose dispense
Their rich perfumes, and ravish every sense;

Where vernal violets all their sweets exhale,
 And fragrant anise breathes in every gale—
 Lips by Narcissus' genuine tears bedew'd—
 Lips by the Oebalian stripling's blood imbued;
 Pure as those streams where either ceas'd to be,
 He by foul chance, and self enamour'd he
 That fragrant life blood, and whose flowing tears,
 By nectar temper'd, and ethereal airs,
 Whose balmy tides impregn'd the fruitful earth,
 And gave the vari-colour'd flow'rets birth."

Seriously, the evils of osculation are probably exaggerated, particularly as they relate to the family circle and the sentimental life. That discriminative education should be aimed at promiscuous osculatory exhibitions is perhaps advisable. When diseases of infectious type are known to travel by the respiratory route, when tuberculosis is so prevalent and its victims grow, a word at times may serve some prophylactic purpose.

The Esquimaux, Japanese and certain savage races have never learned the osculatory embrace, but in India castes direct the mode of kissing in each walk and circle, and in the sacred books of both Brahmin and Persian faith the exact directions are given in which each form of kiss is to be impressed or implanted.

It will be a strange world indeed without the maternal nocturnal or matitudinal osculatory benison; where lovers simply press the fervid hands; where brothers pass in wordy greeting, or where the poet is condemned to banish the highest token of his creed.

"For joy like this
 Olympus sighed in vain!"

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, assisted by DR. C. J. MILLER, New Orleans.

PUERPERAL MORBIDITY AFTER THE BIRTH OF MACERATED FETUS.—The *Journal of Obs. and Gyne. of the British Empire* contains an extract of an article by Kothen (*Archiv fur Gynaekol.*) in which

it is stated that the writer has collected from the Journal of the Women's Hospital in Giessen 70 cases in which the birth of macerated fetuses occurred from 1889 to 1903. These are tabulated and analyzed. A definite rule is adopted in estimating the number of "Morbid" cases and by applying this standard to the ordinary labors occurring in the same hospital during the same years, Kothen arrives at the conclusion that the morbidity after the delivery of macerated fetuses is from 10.8 to 11 per cent. higher than in ordinary morbidity. The discharges were fetid with slight rise of temperature in most of the morbid cases. The cause generally appeared to be infection after rupture of the membranes and before expulsion of the fetus.

ON SECONDARY SUTURE OF THE PERINEUM DURING THE PUERPERIUM.—Abuladse contributed to the *Monats, fur Geburts. und Gynäk Bd. 18 Hf. 4* a paper on this subject, an extract of which appears in *The Journal of Obstetrics and Gynecology of the British Empire* for Jan. 1904.

He states that unhealed lacerations of the perineum, although frequently followed by no particular symptoms, in general lead to such a train of symptoms that operations of a plastic nature have perforce to be performed long after the injury has taken place. The possibility of obtaining good results from suture of the perineum some days after it has been lacerated was demonstrated as far back as 1849, by Maisonneuve, who sutured two such cases on the tenth and twelfth days respectively after labor. Soon after this Nélaton operated on similar cases on the fourth and seventh days, with good results.

Since this time many important authorities have written confirming Maisonneuve's original observations, and in all the writer has collected 118 cases from the literature of the subject. To these are added 11 cases described by the author. Of these 137 cases two died, one of puerperal sepsis, and the other of erysipelas migrans.

In 126 cases the secondary suture was perfectly successful, and the time of performance of the operation varied from the second to the twenty-eighth day after delivery. The operation was partly successful in five cases and unsuccessful in four only. In some of these cases the granulations covering the lacerated surfaces were

simply removed with a sharp spoon before suturing, in others, the wounded surfaces were refreshed by dissection, in others simply by energetic rubbing with cotton wool. Good results were obtained by all these methods. The author recommends the following technic: After disinfection of the genitals and vagina he applies tincture of iodine to the granulation tissue so as to destroy as many bacteria as possible, then puts in the deep sutures, and before tying them scrapes away the granulations with a sharp spoon. The sutures are not removed until after five or six days. In the eleven cases described there was no rise of temperature recorded, and all healed completely. If there has been any infection of the wound or ulcerative process it is necessary to wait until granulation tissue has appeared before attempting to suture the surfaces. On the other hand, there must not be any real scar tissue formed if a good result is to be expected; in general, up to four weeks after labor a good result may be looked for.

Department of Therapeutics.

In charge of DR. J. A. STORCK, New Orleans.

ARISTOCHIN IN BRONCHIAL ASTHMA.—K. Dresler found that aristochin produced very quick relief for asthmatics. At first they invariably complained of being worse, but soon after the spasms lost their intensity, the attacks became fewer, the cough and dyspnea disappeared completely after a short time. One man who had been suffering unspeakably for three years, and who had not been relieved by any of the known drugs, was relieved after taking 0.4 gm. (6 gr.) of aristochin three times daily for six weeks. The drug quiets the irritated nervous system of these patients markedly and regulates the cardiac rhythm, also diminishing the heart-beats considerably. It may produce slight, transient itching and buzzing in the ears, but otherwise nothing unpleasant has been complained of.—*American Medicine*, April 16, 1904.

QUININ SUBCUTANEOUSLY.—The following combination containing quinin is recommended by Aufrecht, administered hypodermically:

R̄ Quin. hydrochlor.....	gr. viiiss	| 50
Urethane	gr iv	| 25
Aqua destil.....	ʒ i 4	|

M. Sig.: At one dose hypodermically.

(The urethane is an ethyl ether of carbonic acid obtained by heating a salt of urea with ethyl alcohol.)—*Journal A. M. A.*, April 16, 1904.

THERAPEUTICS OF THE ICTHYOL COMPOUNDS.—James Burnet of the Royal Infirmary, Edinburgh, has heretofore called attention to the value of various ichthyol compounds. In the present paper, he devotes special attention to ichtoform, a compound of ichthyol and formic aldehyd; and ictthargan, a compound of ichthyol and silver salt. He has used ichtoform as an intestinal astringent, an antiseptic, as a dusting powder, as an ingredient in ointments, and as a means of impregnating gauze. His general conclusions with reference to its use are that (1) it is one of the most efficacious antiseptics which we at present possess, more especially in cases of intestinal disease where its action is more certain and less harmful than salol and some other substances; (2) it is an excellent substitute for iodoform in all cases where the latter is indicated. It is odorless and practically non-toxic; (3) for intestinal administration it is even given in small doses, frequently repeated. As much as two drams may be given in one day if divided into small repeated doses. Ictthargan is a brownish-black, amorphous powder, containing 28.7% of silver. He has had beneficial results from its employment in gonorrhoeal urethritis, gynecologic affections, in dermatologic practice, in affections of the nose and throat, in diseases of the eye, etc. Concerning the two as drugs he believes they are of special value as anti-inflammatory agents; they are trustworthy in action, and deserve to be more extensively used by the profession than has heretofore been the case.

THE PHARMACOLOGY OF VERONAL.—N. T. Batcheroff has made a number of experiments on dogs, frogs and rabbits. He found that veronal paralyzes the central nervous system, small doses affecting chiefly the cerebrum. The sleep of veronal is very long, followed in the case of large dosage by weakness and depression. The number of heart beats is affected seriously only by very large doses. In general, the author remarks that veronal is very similar to trional in its action, being free, however, from the untoward effects of the

latter. This freedom is due to the absence of the sulfogroup in veronal, and thus its prolonged use is safer than that of trional.—*American Medicine*, April 9, 1904.

Louisiana State Medical Society Notes.

In charge of DR. ISAAC IVAN LEMANN, Secretary, 163 University Place.

NEXT MEETING, NEW ORLEANS, MAY, 9 10, 11, 1905.

OFFICERS—President, Dr. Charles Chassaing, New Orleans; 1st Vice President, Dr. Oscar Dowling, Shreveport; 2nd Vice President, Dr. L. C. Tarleton, Marksville; 3rd Vice President, Dr. J. F. Buquoi, Colomb; Secretary, Dr. Isaac I. Lemann, New Orleans; Treasurer, Dr. H. M. McGuire, New Orleans.
 COUNCILLORS—Drs. A. G. Friedrichs, Chairman, 2nd Cong. Dist., 641 St. Charles St., New Orleans; J. J. Ayo, Sec'y., 3rd Cong. Dist., Bowie; P. E. Archinard, 1st Cong. Dist., New Orleans; S. L. Williams, 5th Cong. Dist., Oak Ridge; N. K. Vance, 4th Cong. Dist., Shreveport; C. M. Sitman, 6th Cong. Dist., Greensburg; C. A. Gardiner, 7th Cong. Dist., Sunset.

A resumé of the 1904 meeting appears elsewhere in the Journal. Although it was a splendid meeting and the record one for this Society, we must right now make up our minds to surpass it in 1905 both by increasing our membership and by having a larger proportion of it actually present.

The present administration has taken for its slogan, "Make it a thousand," and hopes every member will do his best to aid the Society in obtaining that number of members.

The president announces the following standing committees:

ON SCIENTIFIC WORK: Dr. Isaac I. Lemann, of New Orleans (ex-officio chairman); Dr. R. Matas, of New Orleans; Dr. E. R. Tolson, of Lafayette; Dr. Z. T. Gallion, of Natchitoches.

ON PUBLIC POLICY AND LEGISLATION: Dr. Chas. McVea, of Baton Rouge; Dr. J. W. Duprée, of Baton Rouge; Dr. L. M. Provosty, of New Roads; Dr. Charles Chassaing, of New Orleans, (ex-officio).

ON PUBLICATION: Dr. I. I. Lemann (ex-officio chairman); Dr. Isadore Dyer, Dr. E. J. Graner, of New Orleans.

As the members of the Special Committee, created at the last meeting, to study proposed changes in the constitution, the Presi-

dent has appointed: Dr. H. D. Bruns, of New Orleans, Chairman; Dr. J. M. Barrier, of Delhi; Dr. W. M. Perkins, of New Orleans.

Chairmen, etc., of Sections will be announced next month.

Orleans Parish Medical Society Notes.

[Edited by the Publication Committee, Drs. S. M. D. Clark, Chairman, Jules Lazard and N. F. Thiberge.]

The work of the Domicile Committee and that of the Board of Directors has finally culminated in the purchase of a building at 141 Elk Place, the price paid being \$5,000. The building is located in a very quiet neighborhood, free from the noise of passing cars, and though the structure is now badly in need of repair, it has been estimated that for the sum of \$2,000 the Society will be in possession of a spacious and desirable home.

Up to the present time about \$3,000 worth of bonds have been purchased and not fifty per cent. of the members having as yet subscribed. The Committee and Board feel confident that at once the project has been put upon a substantial and moving basis, the desired sum will be obtained without much difficulty.

Should the present plans of those who have charge of this project be carried out, our Society will be able to boast of owning an up-to-date meeting place, having a large hall for the Library, separate rooms for reading and for those preparing original papers, etc. We hope in time to have a stereopticon for the better illustration of the essayists' papers, doing away with the unsatisfactory method of the passing around photographs, plates, etc.

For a medical body having 226 members it is timely that we own quarters of which we should be proud and not feel humiliated in inviting physicians to accept the hospitality of our local organization.

Every member should feel that it is his duty to contribute something towards the perfection of our plans and should not wait until called up by members of the Board or Domicile Committee.

Medical News Items.

THE ALEXANDRIA SANITARIUM Co., of this State, have purchased some additional ground and will enlarge their place.

THE ALEXANDRIA BOARD OF HEALTH at its last meeting recommended that 500 birth and death blanks be printed and distributed to the physicians of that city, and that they be required to report the same to the health office.

THE NEW ORLEANS COLLEGE OF DENTISTRY held its 5th Annual Commencement in this City on Friday, May 6. The Dean, Dr. A. G. Friedrichs, said that the college was in its fifth year of existence and the total number of matriculates to date was 329 of which 53 had graduated, 14 belonging to the present class. The course has been made four years with a seven months session each year.

THE NEW ORLEANS COLLEGE OF PHARMACY held its 4th annual session May 12, and had 12 graduates.

AT THE SEMI-ANNUAL MEETING OF THE LOUISIANA STATE BOARD OF MEDICAL EXAMINERS, held May 6 and 7, there were 115 applicants, and 102 passed. There were 7 negroes and one woman who failed to pass.

Following are the names of successful applicants in medicine: L. B. DeBuys, R. McLean Van Wart, C. L. Eshleman, D. R. Evans, E. W. Mantooh, J. S. Ewing, F. J. Hartley, H. C. Boacum, R. C. Ferguson, L. J. Menville, George B. Le Sueur, T. J. Finley, D. J. Weis, C. H. Bailey, J. H. Slaughter, Jr., E. F. Bacon, W. F. Bolton, W. R. Buffington, C. Y. Seagle, E. J. Hubbard, H. A. Gamble, W. Noble, G. S. Brown, S. D. Graves, J. W. Warren, T. P. Lloyd, C. W. Boring, W. P. Cooksey, E. O. Edgerton, J. C. Chapman, E. M. Williams, J. G. Hary, J. F. Smith, R. P. Woods, J. A. Tucker, H. N. Harper, L. Bergeron, W. M. Baird, I. Posnaisky, J. E. Pierce, P. O. Robbins, D. W. Alford, H. E. Gauthreaux, W. M. Wier, R. G. Ducoté, R. F. Thomas, W. H. Crain, H. D. Geydan, B. T. Ferguson, G. C. Patterson, R. H. Fleming, F. A. Blumer, G. L. Gaudet, C. V. Unsworth, D. O. Willis, L. Rancour, M. D. Hendrick, J. O. Greenlaw, J. E. Brierre, J. F. Simpson, S. J. Couvillon, W. H.

Sutherland, F. C. Guilbeau, A. J. Fortinberry, J. R. Rushing, J. H. Holt, W. N. Huggins, C. M. Tucker, P. B. Landry, H. L. Saunders, I. Irwin, J. A. Packer, C. C. Conerly, R. H. Johnson, J. A. Harper, J. A. Knight, W. A. Cheek, F. O. Pavy, W. T. Newman, F. C. Herring, J. A. Gaar, E. Ehlert, R. B. Chachere, F. C. Shute, G. M. Snellings, J. A. Price, M. S. Kahn, J. D. Lemoine, D. B. Singletery, W. R. Register, L. D. McGehee, A. T. O'Connor, W. G. Abernathy, S. E. Finley, J. T. Walker, L. A. Méraux, and colored: B. V. Lindley, S. C. Green, W. J. Dauphin, F. M. Nelson, T. A. Jones, J. A. Hardin and John W. Thomas.

THE CHARITY HOSPITAL OF LOUISIANA ALUMNI ASSOCIATION held its annual meeting May 9, and elected the following officers for next year: President, Dr. J. F. Oechsner; Secretary, Dr. A. C. Eustis; Treasurer, Dr. J. S. Hebert.

The president, Dr. Henry Dickson Bruns, delivered the following address:

To the Members of the C. H. of La. Alumni Ass'n:

GENTLEMEN—It is the custom, if not the law, that your President should make to you, on the night of his retirement, an address having to do with the purposes of our Association. It has always seemed to me the better part of wisdom to keep silent if one has nothing original or very pertinent to say, rather than to weary patient hearers by the reiteration of commonplaces. But I have always taken a peculiar pleasure in this little society of foster-brothers in medicine, and my unexpected and spontaneous election to this office last year produced in me so genuine an emotion that I cannot on this opportunity repress all expression. When we enter upon middle age the things that attach us to our youth begin to grow precious, and I agree entirely with the sentiment, so well spoken last year by Dr. Holt, that the most valuable function of this Association is to re-unite, once in the long period of 365 days, those who have in common a happy recollection in the past. All who have ever been resident students of the Charity Hospital are by that fact, willy-nilly, members of our body, and I do not see how they can voluntarily deprive themselves of the pleasure of meeting again each year their once intimate companions. It seems to me, therefore, a good custom to regard neither formal accessions to the Society nor resignations from its ranks, but to look on all

who have ever been resident students as members *in posse* and to bid them welcome whenever the spirit moves them to pay their Scott and take their places at our board—of sober, scientific associations we surely have enough, but this body of medical men, owning a common totem is unique. It should be like a good citizen who goes upon his way, not unduly self-conscious, “toiling, rejoicing, sorrowing;” welcoming the little pleasures of life as they come, and incidentally doing the duties that lie nearest to him without effort and without noise. And that much of good may by quiet persistence be thus accomplished the minutes of your Society are beginning to show. It is due to your initiative that a certain per cent., at any rate, of the invaluable clinical records of the Hospital are now collected and from time to time properly filed away. This year the long continued efforts of my predecessors have begun to bear fruit; the term of the House surgeonship has been limited to six years, and the Board of Administrators has declared its purpose to fill vacancies in the office by promotion of the assistants, in order of their rank, and to choose the junior assistant by means of a competitive examination. Surely this is something very material to the welfare of our alma mater, and well worth having lived our short life. You will also see by the minutes of the business meeting held this winter, that the Administrators having expressed their intention of having this reform crystalized, if possible, in legislation, a committee of this Society was appointed to offer to the Administrators our co-operation. The record also shows that the committee carried out its instructions. I would advise that a committee be appointed by the incoming President to notify this board that it is now ready to take up this matter and push it to completion at the present session of our Legislature. I would also suggest that a standing committee on Medical Reports from the Charity Hospital be created for the purpose of studying, collecting, arranging for publication and publishing all that is of greatest interest in the filed case-histories of the hospital. Very valuable statistics could, doubtless, be thus made available. Such a committee should, I believe, be composed of volunteers; at least the President, who might be *ex-officio* chairman, should ascertain that a member was not only willing, but anxious to serve, before appointing him. The work could not be successful unless pursued as a labor of love and not one of compulsion. And

now let me say farewell and welcome. Farewell as your executive; welcome to the new members. Last year I attained my majority in the practice of medicine and the fact of having been your presiding officer will mark it in a way particularly gratifying to me—and, may I add, I hope, in a measure, to you.

At the ANNUAL MEETING OF THE STATE PHARMACISTS held in this city May 6 it was resolved to affiliate with the National Association. The following officers were elected: President, F. G. Godbold; Secretary, G. W. McDuff; Treasurer, G. S. Braun.

IT IS ANNOUNCED by Dr. G. M. Folkes that the new building of the Biloxi Sanatorium will have elaborate baths of all kinds, and expects to open about October 1.

THE CROWLEY BOARD OF HEALTH MADE ITS ANNUAL REPORT May 11, which showed the death rate to be 13%. Dr. E. M. Ellis was elected President.

ANY MEMBER OF THE LOUISIANA STATE MEDICAL SOCIETY who has the transactions for the years 1878, 1881, 1882, 1889 and 1890 will confer a favor by addressing the Secretary, Dr. I. I. Lemann.

THE TRI-PARISH MEDICAL ASSOCIATION, which embraces Bienville, Claiborne and Webster parishes held a good meeting at Minden, La., April 27. The following officers were elected: Dr. Joseph Atkinson of Arcadia, was elected President; Dr. S. M. Scott of Minden, Secretary; Dr. Nelson of Arcadia, First Vice President; Dr. C. G. Coyle of Cotton Valley, Second Vice President and Dr. John Featherstone of Homer, Third Vice President. It was decided to hold the next session at Arcadia, on the second Tuesday in October, and to continue semi-annual meetings in the future. After adjournment the members enjoyed dinner, which had been prepared by the local members at the Taylor Hotel.

PERSONAL.—The office and drug store of Dr. A. L. Chopin, at Lamothe, La., were completely wrecked by the hail storm which passed through that section last month.

DR. GEO. W. F. REMBERT sailed during the month for Europe, where he will do post graduate work and will visit the leading hospitals in Great Britain and on the Continent.

DR. JAS. TRUMAN REEVES of Louisiana was among the fifty-two graduates from the Baltimore (Md.), School of Medicine.

Dr. H. H. Righthor, of Helena, Ark., who graduated last month at Tulane, left for Europe to complete his studies.

Dr. William M. Perkins and Dr. J. B. Elliott, Jr. were elected delegates to the American Medical Association meeting to be held at Atlantic City, June 7.

Dr. W. H. Harrison, of Tutwiler, and Dr. D. J. Williams, of Ellisville, were elected delegates at the recent meeting of the Mississippi State Medical Association to the American Medical Association.

Dr. G. N. Snelling and Dr. H. E. Gautraux were successful candidates for the selection for assistants in the Touro Infirmary.

Dr. E. D. Fenner and Dr. Isadore Dyer will spend the summer in Europe.

MARRIED—Dr. Otto Lerch to Miss Elizabeth H. Torrey, in this city on May 7. The couple immediately left for Europe.

Dr. C. H. Ramsey and Miss Alice Stumbaugh, of Laurel, Mississippi, were married May 19.

DIED.—Dr. A. S. Davidson, of New Orleans, died May 11 at Alexandria, aged 66 years.

THE MISSISSIPPI MEDICAL RECORD will begin its June number as the *Journal of the Mississippi State Medical Association* with an initial issue of some 800 copies. This change was made at the last meeting of the State Association, of which the *Record* has been for some time the official organ.

CORRECTION.—Dr. S. L. Williams, of Oak Ridge, La., requests that in his recent paper on Report of a Case of Scarlet Fever, line 2, page 836 of the JOURNAL, should read "not exceeding 30 hypoinjections," instead of "not 3," as it appears.

THE ANNUAL MEETING OF THE AMERICAN MEDICAL EDITORS' ASSOCIATION will be held on June 6 at 2 p. m., Dennis Hotel, Atlantic City, N. J. Papers will be presented upon medical journalism and allied subjects.

DIED.—Dr. Robert Bartholow, eminent physician and emeritus professor of materia medica, therapeutics and hygiene of Jefferson Medical College, at his home in Philadelphia, on May 1, after a lingering illness. The doctor was 73 years old.

AT THE MEETING OF THE MEDICAL BOARD OF THE NEW YORK SCHOOL OF CLINICAL MEDICINE, held April 9, Dr. J. L. Adams was elected Secretary of the School, and professorial and other distinctions were conferred upon the following in the departments specified: Mental Diseases: Prof. E. C. Dent, Supt. Manhattan State Hospital, West, Ward's Island. Internal Medicine: Prof. Wm. Brewster Clark, M. D.; Gastro-Intestinal Diseases: Prof. Robert Coleman Kemp, M. D.; Associate: Prof. Graham Rogers, M. D.; Hydro-Therapeutics: Prof. Alfred W. Gardner, M. D.; Ophthalmology and Otology: Prof. Geo. Ash Taylor, M. D.; Clinical Instructor and Assistant, Wm. E. West, M. D.; Genito-Urinary Diseases: Chief of Clinic and Associate, Prof. C. Stern, M. D.; Dermatology: Chief of Clinic and Instructor, L. D. Weiss, M. D.

THE UNIVERSITY OF PENNSYLVANIA will dedicate its new medical laboratories on June 10. Considerable interest has been taken in the occasion because of the extensive character of the new buildings. Invitations have been received by the JOURNAL together with a little brochure detailing the improvement in teaching at the University of Pennsylvania. The list of Committee of Arrangements includes some of the best known of the Philadelphia profession.

TULANE MEDICAL DEPARTMENT GRADUATED 91 physicians on May 4. The annual address was delivered by Prof. C. Alfonso Smith, Dean of the Graduate Department of the University of North Carolina. This was the first class to graduate under the four years' rule.

CHANGES IN TEACHING STAFF.—The Tulane Medical Department have made several changes in their teaching staff. Through the resignation of Dr. L. F. Reynaud the Chair of Materia Medica and Therapeutics was made vacant. The Faculty has elected in his

stead Dr. J. T. Halsey of the McGill University, Montreal, Can. In addition to this the following have been elected Associate Professors: Dr. Isadore Dyer to the Chair on Diseases of the Skin; Dr. E. D. Fenner to the Chair on Diseases of Children; Dr. J. B. Elliott, Jr., to the Chair on Clinical Medicine. Dr. P. E. Archinard in addition to his branch of Bacteriology has been made lecturer on Neurology; Dr. Gordon King has been made lecturer and clinical instructor on Diseases of the Ear, Nose and Throat, and Dr. J. B. Guthrie has been made lecturer on Materia Medica and Therapeutics.

MESSESS. W. B. SAUNDERS & Co. announce new editions of quite a number of their standard works. We are glad to note among these the second edition of Dr. Warren Stone Bickham's "Operative Surgery," first edition of which was exhausted in six months.

AT THE LAST MEETING HELD IN JACKSON, MISS., May 19, there were 199 applicants who took the examination to practice medicine in Mississippi and only 95 passed.

A LEPER IN HARWICH, MASS.—A case of leprosy in a Portuguese has been discovered in Harwich, Mass. He is at present living alone in an isolated situation, and is prevented by the authorities from leaving the premises. His food is supplied by the town.—*Boston Med. and Surgical Journal*.

THERE WERE 54 APPLICANTS BEFORE THE BOARD OF DENTAL EXAMINERS AT JACKSON, MISS., in May, and 42 passed.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

The Therapeutics of Mineral Springs and Climates, by I. BURNEY YEO, M. D., F. R. C. P. W. T. Keener & Co., Chicago, 1904.

It is a good thing to have a reliable reference book dealing with the qualities of climatic and health resorts, and Dr. Yeo has done this in presenting the work in review. Not only has he carefully related the attributes of the most important resorts in Europe, but he has indicated in a very clear manner the particular diseases in which benefit might accrue from these places. Lists of different resorts are given, and again these are arrayed under particular diseases, as these are especially discussed. This is not the first work on the subject, but it must prove very acceptable to the English reader.

DYER.

A Text-Book of Legal Medicine and Toxicology. Edited by FREDERICK PETERSON, M. D., and WALTER S. HAINES, M. D. In two volumes. Vol. II., W. B. Saunders & Co., Philadelphia, New York and London, 1904.

Our review of the first volume of this work contained an enthusiastic commendation of its many points of excellence, and the concluding volume now before us only adds to our appreciation of what we must name as the most commensurate work to the subject in hand we know published in the English language. Each field is exhaustively covered, and the editors have extended the scope of Legal Medicine to include many subjects not hitherto embraced, or else only referred to in an obscure text. The whole question of feigned conditions is covered, and chapters are devoted to the sex relations, in medico-legal aspect, abortion, infanticide, irregular sex relations, impotence and the relation of venereal diseases; the laws of all states on insanity are quoted and discussed. The latter part of the work is devoted to toxicology, and no pains have been spared in making this section complete in research, text and illustration. Methods of chemical, postmortem and physiological examinations are detailed, and superb chromo tones are reproduced showing various organs involved. Altogether the editors, contributors and publishers have amassed a fund of information invaluable as reference to the student of medico-legal questions.

DYER.

Infectious Diseases. Their Etiology, Diagnosis and Treatment, by G. H. ROGER, Professor Extraordinary in the Faculty of Medicine of Paris. Translated by M. S. GABRIEL, M. D. Lea Bros. & Co., New York and Philadelphia, 1903.

Intensely interesting from the first lines of the introductory chapter, this work carries the reader along through the mazes of definition and deduction, until the whole field proves full of material profit.

First reviewing the pathogenic elements themselves, the author takes up the etiology of particular diseases, disposes the micro-organisms in their several relations, congregates them and then discusses the relation of effects to the element in question. Congener or correlated elements are reviewed and the mass of complementary questions in each disease is successfully applied in each instance. Immunity, predisposition, accident, age, sex and other points involved are disposed of in logical course. The whole work is made up of concrete arguments, each fitting its own part and all leading to the theory of disease evolving from distinct *causa morbi*, the indirect and direct results following in natural course. Chapters are given up to the diagnosis and therapeutics of infectious diseases, but here, also, the attention of the reader is held by the logic of succinct theory of indications, rather than by reference to specific rule or medication.

The name of Roger has been long known to us, and the translator has earned the gratitude of the English reading profession for his faithful rendition of this most excellent contribution.

The Ideal City, by COSIMO NOTO, M. D. New York Labor Men's Press, 1903.

There are many ideas in this work of Dr. Noto's which bear the evidence of serious reflection on the part of the author. Like Edward Belamy's "*Looking Backward*," it aims at theories of centralization, but with an undercurrent of government on socialistic principles. The work presumes fifty years of advance in the City of New Orleans, and suggests the conditions which might obtain after half a century. These evidently are directed by the author at modeling municipal affairs, domestic and sanitary conditions, and at educating the world generally upon ethical principles as tantamount, those of politics, diplomacy and competition being set aside for absolute laws of both righteous and hygienic living. Religion as such is abolished, and churches exist only as historic souvenirs. The philosophy of Dr. Noto's book carries the higher ideals of socialism, and while it may serve no purpose beyond the pleasure of reading it, it reflects intelligent conception of a modern theory. DYER.

Publications Received.

Lea Bros. & Co., Philadelphia and New York, 1904.

The Medical News Pocket Formulary, by Dr. E. Quin Thornton.

The Medical Epitome Series, Pediatrics, Tuley-Penderson.

A System of Practical Surgery, by Prof. E. Von Bergmann, M. D., Vol. 2.

The Medical Diagnosis, by Dr. John H. Musser.

W. T. Keener & Co., Chicago, 1904.

The Therapeutics of Mineral Springs and Climates, by Dr. I. Burney Yeo.

P. Blakiston's Son & Co., Philadelphia, 1904.

Case Teaching in Surgery, by Drs. Herbert L. Burrell and John Papst Blake.

A Manual of Fever Nursing, by Dr. Reynold Webb Wilcox.

The Year Book Publishing Co., Chicago, 1904.

The Practical Medicine Series of Year Books (Gynecology).

J. B. Lippincott Co., Philadelphia, 1904.

International Clinics, Vol. 1, 14th Series.

F. A. Davis Co., 1904.

Manual of Materia Medica and Pharmacy, by E. Stanton Muir, Ph. G. V. M. D.

Miscellaneous.

Report of the Board of Administrators of the Charity Hospital to the General Assembly of the State of Louisiana, 1903.

Detroit College of Medicine Announcement for Session of 1904-1905.

The Story of Smallpox in Oregon; Hints Upon School Hygiene; Prevention and Cure of Consumption; Prevention of Typhoid Fever; Bulletins from the Oregon State Board of Health.

Bi-annual Report of the Board of Control of the Leper Home of the State of Louisiana to the Governor and General Assembly, 1904.

State Requirements for Medical Practice, by the Illinois State Board of Health.

Reprint.

Practical Use of the Metric System, by Dr. A. L. Benedict.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Report of the Board of Health of the City of New Orleans.)
FOR APRIL, 1904.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	4	2	6
Intermittent Fever (Malarial Cachexia)		4	4
Small Pox.....			
Measles.....	4	2	6
Scarlet Fever.....			
Whooping Cough.....	1		1
Diphtheria and Croup.....	2		2
Influenza.....	5	4	9
Cholera Nostras.....			
Pyemia and Septicemia.....	1	2	3
Tuberculosis.....	51	46	97
Cancer.....	14	5	19
Rheumatism and Gout.....	2		2
Diabetes.....	2		2
Alcoholism.....	3		3
Encephalitis and Meningitis.....	11	6	17
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	16	5	21
Paralysis.....	3	1	4
Convulsions of Infants.....	1	2	3
Other Diseases of Infancy.....	23	9	32
Tetanus.....			
Other Nervous Diseases.....	1		1
Heart Diseases.....	24	23	47
Bronchitis.....	5	10	15
Pneumonia and Broncho Pneumonia.....	32	36	68
Other Respiratory Diseases.....	7	3	10
Ulcer of Stomach.....	2		2
Other Diseases of the Stomach.....	2	3	5
Diarrhea, Dysentery and Enteritis.....	66	24	90
Hernia, Intestinal Obstruction.....	1	2	3
Cirrhosis of Liver.....	5		5
Other Diseases of the Liver.....	5	2	7
Simple Peritonitis.....	3		3
Appendicitis.....	2		2
Bright's Disease.....	32	12	44
Other Genito-Urinary Diseases.....	2	1	3
Puerperal Diseases.....	3	2	5
Senile Debility.....	16	1	17
Suicide.....	1		1
Injuries.....	17	12	29
All Other Causes.....	17	17	34
TOTAL.....	387	236	623

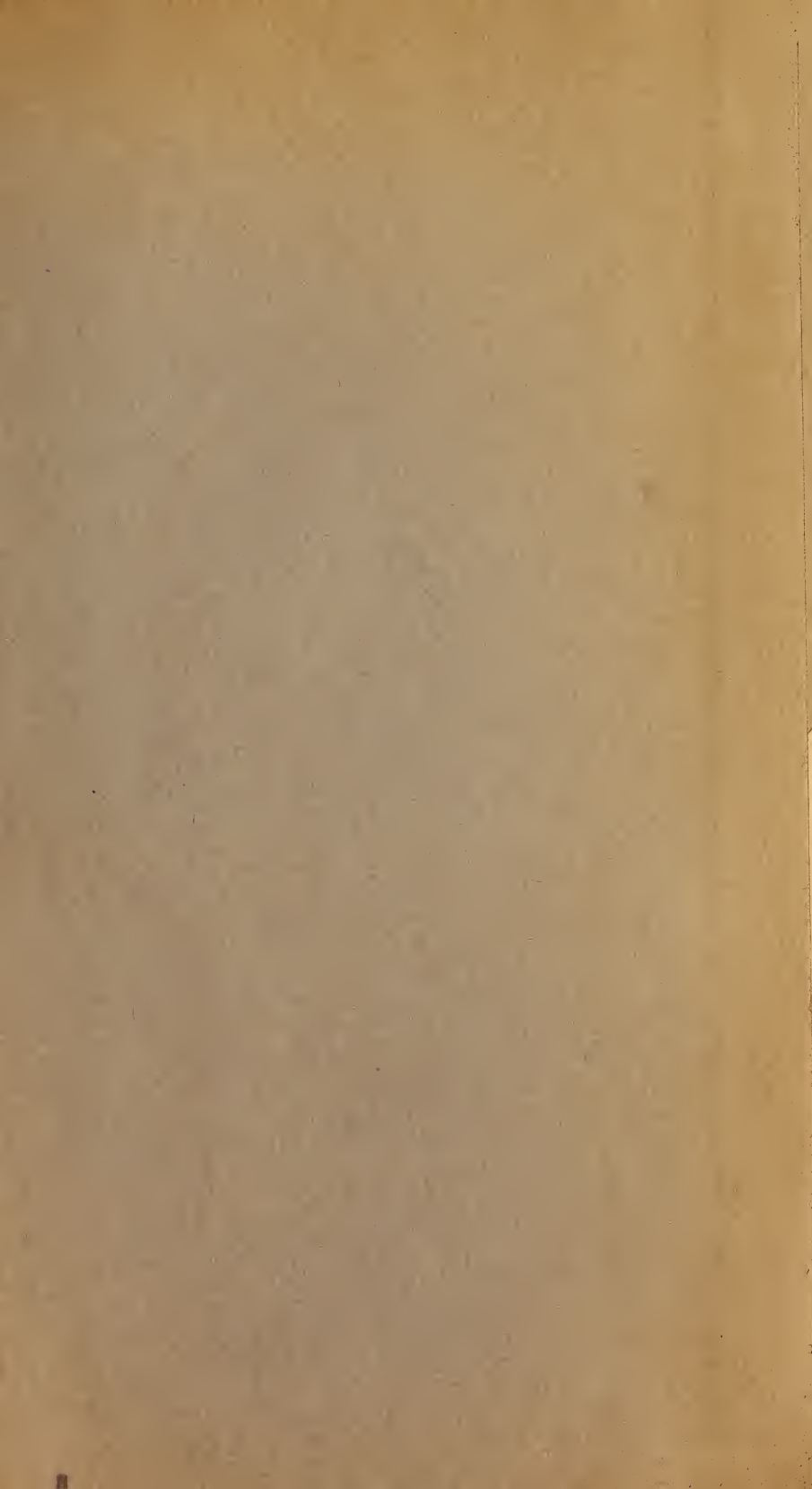
Still-born Children—White, 20; colored, 14; total, 34.

Population of City (estimated)—White, 233,000; colored, 84,000; total, 317,000.

Death Rate per 1000 per annum for Month—White, 19.93; colored, 33.71; total, 23.58.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.04
 Mean temperature 67.
 Total precipitation 1.94 inches.
 Prevailing direction of wind, southeast.





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